

**THE WEST FIRM**  
A PROFESSIONAL LIMITED LIABILITY COMPANY  
**Attorneys And Counselors At Law**

677 Broadway, 8<sup>th</sup> Floor  
Albany, New York 12207-2996  
Telephone (518) 641-0500  
Facsimile (518) 615-1500

Thomas S. West\*  
Gregory A. Mountain\*

*\*Also admitted in Pennsylvania*

Cindy M. Monaco  
Matthew D. Wagoner  
Alita J. Giuda  
Sita Legac\*

Direct Dial: (518) 641-0501  
Direct Facsimile: (518) 615-1501  
E-Mail: [twest@westfirmllaw.com](mailto:twest@westfirmllaw.com)  
[www.westfirmllaw.com](http://www.westfirmllaw.com)

September 27, 2013

***VIA ELECTRONIC MAIL***

Beverly Kolenberg, Esq.  
Assistant Regional Counsel  
Office of Regional Counsel,  
U.S. Environmental Protection Agency  
290 Broadway, 17<sup>th</sup> Floor  
New York, NY 10007-1866  
[lapoma.jennifer@epa.gov](mailto:lapoma.jennifer@epa.gov)  
[kolenberg.beverly@epa.gov](mailto:kolenberg.beverly@epa.gov)

Re: Request for Information Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9604(e), Related to the New Cassel/Hicksville Ground Water Contamination Superfund Site in the Towns of Hempstead, North Hempstead and Oyster Bay in Nassau County, New York

Dear Ms. Kolenberg and Ms. Lapoma:

This firm represents the F. A. Bartlett Tree Expert Company ("Bartlett"), a company to whom the United States Environmental Protection Agency ("EPA") issued the above-referenced request for information. As you may recall, we spoke with you on August 8, 2013, to request an extension on the 30 day deadline to respond, which extension you granted allowing our submission by September 16, 2013. My office also spoke with you on September 12, 2013, and obtained a further extension up to and including today, September 27, 2013. This letter and its attachments form Bartlett's Response to the EPA's Request for Information. Attached to this letter and/or provided on our electronic FTP site, please find:

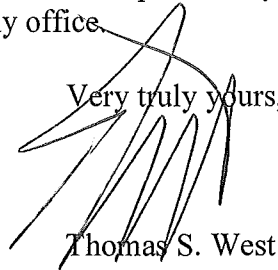
- Bartlett's Response to EPA's Request for Information;
- Technical Memorandum dated September 26, 2013;
- Bartlett's Certification of Answers to Request for Information sworn to on September 26, 2013;
- Submitted Documents Index; and

Beverly Kolenberg, Esq.  
Re: Bartlett Tree  
September 27, 2013  
Page 2

- Documents responsive to EPA's Request for Information (Provided electronically at: [westfirmlaw.sharefile.com](http://westfirmlaw.sharefile.com))

Should you have any questions, or require CDs or hard copies of any of the documents submitted with this response, please feel free to contact my office.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Thomas S. West', is written over the closing 'Very truly yours,'.

Thomas S. West

TSW/tms  
Enclosures

New Cassel/Hicksville Ground Water Contamination Superfund Site  
Document Index  
The F.A. Bartlett Tree Expert Company

			<p>This Index contains a list of the documents submitted as part of Bartlett's response to the EPA Request for Information relating to the above-referenced site dated July 31, 2013. The index lists the date and name of the document, its preparer as appropriate, and assigns it an Item Number. The electronic file for each document includes the Item Number at the beginning of the name of the document to identify which document is which. Bartlett's response to the EPA Request for Information includes references to these numbers where appropriate.</p> <p>Finally, the first column in this table lists the question(s) in the EPA Request to which each document relates.</p>	
<b>Request Letter Item Number</b>	<b>Item No.</b>	<b>Date</b>	<b>Document</b>	<b>Prepared By</b>
3a, 3g	1	02/26/1963	Purchase Money Mortgage The F. A. Bartlett Tree Expert Co., Mortgagor and Elsie C. Christ, Mortgagee	----
4, 4a, 4b	2	10/18/1966	Architect Plans and Survey	Herman C. Knebel
3a, 3g, 8	3	07/01/1988	Lease with George Oil Corp	----
3a, 3g	4	05/10/1989	Sub-Lease The F. A. Bartlett Tree Expert Company to Cross Island Welding & Equipment Repair, Inc.	----
3g, 4, 4a	5	12/22/1994	Survey – Lot Line Change – Westbury, Nassau County, NY	ELS Associates
2, 3a, 3g	6	03/31/95	Deed 333 Union Avenue Corp. to The Bartlett Realty Company, Incorporated	----
4, 4a, 4b, 4c, 7, 8, 9, 10	7	04/1998	Preliminary Site Assessment prepared for NYS DEC	Dvirka and Bartilucci Consulting Engineers
8, 9, 10	8	04/1998	Preliminary Site Assessment prepared for NYS DEC	Dvirka and Bartilucci

New Cassel/Hicksville Ground Water Contamination Superfund Site  
Document Index  
The F.A. Bartlett Tree Expert Company

			Supplemental Documents	Consulting Engineers
4, 4a, 4c, 8, 9, 10	9	04/1998	Preliminary Site Assessment prepared for NYS DEC Tables and Figures	Dvirka and Bartilucci Consulting Engineers
2, 4a, 4c, 8, 9, 10	10	03/13/2000	DEC Listing Package	NYS DEC - Division of Environmental Remediation – Bureau of Hazardous Site Control
2, 3a, 3b, 3g, 4a, 4c, 8, 9, 10	11	03/2008	Remedial Investigation/Feasibility Study Work Plan	Brown and Caldwell Associates
10	12	05/13/2008	Report of Asbestos Inspection Revised	Alpine Environmental Services, Inc.
10	13	06/12/2008	Results of Air and Sub-Slab Vapor Sampling	Brown and Caldwell Associates
3g, 4, 4a, 4b	14	11/07/2008	Location and Topographic Survey 345 Union Avenue Village of Westbury, Town of North Hempstead	Joseph Haller, PLS of Bertin Engineering Associates, Inc.
4, 4a, 4b, 4c, 8, 9, 10	15	02/2009	Closure of Drywell 3 Work Plan	Brown and Caldwell Associates
4a, 4b, 4c, 8, 9, 10	16	09/2009	Data Summary Report – Remedial Investigation	Brown and Caldwell Associates
4, 4a, 4c, 10	17	11/17/2009	Addendum Letter to the approved RI/FS Work Plan of 09/2009	Brown and Caldwell Associates
4, 4a, 4b, 4c, 8, 9, 10	18	03/2010	Closure of Drywell 3 and Mechanic's Pit Remedial Action Report	Brown and Caldwell Associates
4, 4a, 4b, 4c, 8, 9, 10	19	08/2010	Data Summary Report Supplemental RI	Brown and Caldwell Associates
4b, 4c, 8, 9, 10	20	08/02/2010	EPA Inventory of Injection Wells	Brown and Caldwell Associates
4, 4a, 4b, 4c, 8, 9, 10	21	10/26/2010	Technical Memorandum regarding Remediation and Investigation derived Waste Disposal	Brown and Caldwell Associates
4, 4a, 4b, 4c, 8, 9, 10	22	07/12/2011	Report–Drywell 1 Delineation and Waste Characterization Sampling	Brown and Caldwell Associates

New Cassel/Hicksville Ground Water Contamination Superfund Site  
Document Index  
The F.A. Bartlett Tree Expert Company

4, 4a, 4b, 4c, 8, 9, 10	23	04/2012	Interim Remedial Measure Work Plan – Drywell 1	Brown and Caldwell Associates
10	24	05/08/2012	Results of March 2012 Air and Sub-Slab Vapor Sampling	Brown and Caldwell Associates
10	25	08/13/2012	Addendum to Interim Remedial Measure Work Plan – Drywell 1	Brown and Caldwell Associates
10	26	02/06/2013	NYS DEC Hazardous Waste Report Site Identification Form - 2012	The F. A. Bartlett Tree Expert Company
4, 4a, 4b, 4c, 8, 9, 10	27	07/2013	Construction Completion Report Drywell 1 – IRM Implementation	Brown and Caldwell Associates
4, 4a, 4b, 4c, 8, 9, 10	28	08/2013	Draft Remedial Investigation Report	Brown and Caldwell Associates
6a, 6b, 7	29	09/17/2013	Westbury Pesticide Inventory	The F. A. Bartlett Tree Expert Company
6a	30	----	ACCORD LABEL	
6a	31	----	ALAMO LABEL	
6a	32	----	ASTRO LABEL	
6a	33	----	BASELINE LABEL	
6a	34	----	CONSERVE LABEL	
6a	35	----	DISTANCE LABEL	
6a	36	----	KOCIDE 2000 LABEL	
6a	37	---	LUCID LABEL	
6a	38	----	PYRONYL CROP SPRAY LABEL	
6a	39	----	RAINBOW HORTICULTURAL OIL LABEL	
6a	40	----	RELIANT SYSTEMIC FUNICIDE LABEL	
6a	41	----	ROUNDUP QUICKPRO LABEL	
6a	42	----	TALSTAR P LABEL	
6a	43	----	TRIMTECT LABEL	
6a	44	----	XYTECT 2F LABEL	

## REQUEST FOR INFORMATION

The F. A. Bartlett Tree Expert Company ("Bartlett") is a tree maintenance company owning a 0.4 acre property (the "Property") within the New Cassel/Hicksville Ground Water Contamination Superfund Site (the "Site"). Bartlett has operated in the same line of work, namely tree maintenance providing services to clients located in the area, from the same location since approximately the late 1950's. In 1987, Bartlett began investigating the Property for potential pesticide and/or herbicide contamination. This ultimately led to a contractor for the New York State Department of Environmental Conservation ("DEC") performing a Preliminary Site Assessment at the Property to determine if a potential source of soil and/or groundwater contamination existed at the Property. In 2000, the DEC added the Property to its registry of inactive hazardous waste sites (Registry No. 130074), stating that the disposal of the following listed hazardous wastes had been confirmed: Dieldrin (P037), alpha-Chlordane (U036), 4,4 DDD (U060), 4,4 DDT (U061), and gamma-BHC (Lindane, U129).

In April 2007, Bartlett entered into an Order on Consent and Administrative Settlement, Index No. W1-1091-06-08, Site #1-30-074, with DEC ("Consent Order"), agreeing to investigate and remediate the Property. Since entering into the Consent Order, Bartlett has completed substantial investigations of the Property, including groundwater, soil and soil vapor monitoring and/or sampling. Additionally, Bartlett has completed remediation involving closure and removal of various structures at the Property. A number of work plans and reports have been prepared, submitted to, and approved by DEC. Generally, the vast majority of contaminants identified are pesticides and herbicides. Bartlett's investigations revealed that certain VOCs are present at the Property; however, these contaminants are not the source of the identified groundwater contamination for the Site. The VOCs of concern with respect to the Site appear to be migrating onto the Property from a source upgradient. To further explain this, Bartlett is submitting a technical memorandum prepared by Brown and Caldwell, the consulting firm who has performed the investigative and remedial work at the Property (the "Technical Memorandum"). Additionally, Bartlett is submitting all of the investigation work plans and reports submitted to DEC so that EPA may have the benefit of the extensive work Bartlett has already performed at this Property under DEC auspices, which further demonstrates the localized nature of the contamination associated with the Property.

With respect to EPA's specific inquiries in its Request for Information, Bartlett has included each inquiry in italics below, with Bartlett's response included thereafter. Where appropriate, Bartlett refers to the Technical Memorandum, the various work plans and reports being submitted with this production request, and other documents also being provided with this Response. Bartlett reserves all of its rights with respect to this submission pursuant to CERCLA and other relevant law.

1. a. *State the correct legal name and mailing address of your Company;*

The F.A. Bartlett Tree Expert Company  
1290 East Main Street  
Stamford CT 06905

This information was provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

- b. *State the name(s) and address(es) of the President, Chief Executive Officer and the Chairman of the Board (or other presiding officer) of the Company;*

Robert A Bartlett, Jr., Chairman and CEO  
29 Bartlett Lane  
Stamford, CT 06903

James B. Ingram, President and COO  
7 Swallow Lane  
Westport CT, 06880

John E. Signorini, CFO and Executive VP  
661A Heritage Hills Antelope Cir  
Somers, NY 10589

This information was provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

- c. *Identify the state and date of incorporation of the Company and the Company's agents for service of process in the state of incorporation, and in New York State; and*

Bartlett was incorporated in 1907 in the State of Connecticut. CT Corporation, 111 Eighth Avenue, New York, NY 10011 is Bartlett's agent for service in New York. Bartlett's agent for service in Connecticut is Fred Tobin, Secretary, 1290 E. Main Street, Stamford, 06905.

This information was provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

- d. *If your Company is a subsidiary or affiliate of another corporation or entity, identify each of those other corporations or entities and for each, the President, Chief Executive Officer and Chairman of the Board. Identify the state of incorporation and agents for service of process in the state of incorporation and in New York State for each corporation identified in your response to this question.*

Bartlett is not a subsidiary or affiliate of any other company.

This information was provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

2. *Identify the address, Section, Block and Lot numbers, and the size of each property (hereinafter, "Property" or "Properties") that your Company either presently owns and/or formerly owned within the Site from the date your Company, or any related company had an ownership interest. (See Definitions section for terms.):*

The Property owned by Bartlett is located on Long Island, at 345 Union Avenue in the Village of Westbury, Nassau County, New York. The Property is identified in the Nassau County Tax Rolls as Section 10, Block 228, Lot 786 and Section 10, Block 228, Lot 206. The Property consists of a narrow parcel of land measuring approximately 340 feet in length by 60 feet wide, totaling approximately 0.4 acres. It is bordered on the north by a municipal parking lot; on the east by a construction materials warehouse; on the south by Union Avenue, followed by the Long Island Railroad, a parking lot and cemetery; and on the west by a taxi fleet maintenance facility and construction contractor's storage yard.

The Property consists of two parcels; one parcel which was purchased in 1963, making up the majority of the 0.4 acres (Lot 206). By deed dated March 31, 1995, Bartlett purchased a fifty foot wide strip running the length of the property along the western border of the Property from 333 Union Avenue Corp., 333 Union Avenue, Westbury, NY, 11590, for ingress and egress purposes (Lot 786).

This information was derived from a number of documents submitted with this response package. The accompanying Index identifies which documents contain information used in the response to this question. Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

3. *For each Property identified in response to question 2 in which your Company has and/or had an ownership interest currently or in the past, please identify:*

- a. *The date your Company acquired an ownership interest. An ownership interest includes, but is not limited to, fee owner, lessor or lessee, licensee and/or operator;*

Bartlett purchased Lot 206, the majority of the Property, on February 26, 1963, from Elsie Christ, 32 Longfellow Ave, Westbury NY. Bartlett previously rented Lot 206 beginning in approximately the late 1950's. After a diligent search, Bartlett was unable to locate a copy of any lease document, and, given the number of years that have passed, there are no remaining employees with knowledge of the date Bartlett began leasing the property, or of the contents and terms of any

lease(s). Bartlett is unaware of the whereabouts of any former employees who would have known this information, if any exist. Accordingly, it is Bartlett's best estimate that it began leasing the site a few years prior to its purchase of Lot 206 in 1963.

As stated in Response 2, above, on March 31, 1995, Bartlett purchased a small strip of property, Lot 786, for ingress and egress. From July 1, 1988 to June 30, 1991, Bartlett leased this strip of property from George Oil Corp., 333 Union Avenue, Westbury, NY 11590. Bartlett believes, but does not have independent confirmation, that George Oil Corp. is a related entity to 333 Union Avenue Corp., the entity who sold this property to Bartlett. The purpose of the lease was to provide Bartlett space to park its service vehicles and equipment. After the termination of the lease term, Bartlett did not maintain any ownership interest in this property until its purchase of it in 1995.

This information was derived from a number of documents submitted with this response package. The accompanying Index identifies which documents contain information used in the response to this question. Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

*b. The name and address of all other current and/or previous owners;*

Prior to Bartlett, Ms. Elsie Christ, 32 Longfellow Avenue, Westbury, NY owned the Property (Lot 206). Bartlett is unaware of the ownership status prior to Ms. Christ because her ownership was more than fifty years ago. However, Sanborn fire insurance maps dated 1920, 1929 and 1941 indicate the Property (Lot 206) was occupied by E. J. Christ (or C. Christ) blacksmith, wagon works and auto repairs as early as 1920. The 1910 Sanborn map shows a wagon works and auto repair facility, but does not indicate who the proprietor might have been. The strip of property purchased in March 31, 1995 (Lot 786) was previously owned by 333 Union Avenue Corp., which Bartlett believes is related to George Oil Corporation, the lessor to Bartlett's brief lease. Bartlett is unaware of the ownership status prior to 333 Union Avenue Corp. and/or George Oil Corp. because of its limited interaction with that property. There are no other current owners of the Property besides Bartlett.

This information was derived from a number of documents submitted with this response package. The accompanying Index identifies which documents contain information used in the response to this question. Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

- c. *All individuals or entities that have leased, subleased or otherwise operated at each Property at any time currently or in the past, and identify the dates (month and year) that each such individual or entity began and ended its leasehold interest or its operations;*

During Bartlett's lease of Lot 786 from the George Oil Corp., namely, from May 12, 1989 through May 11, 1991, Bartlett subleased approximately 4,000 square feet of space which was located at the rear 40 feet of the northerly side of 333 Union Avenue, Westbury, NY to Cross Island Welding & Equipment Repair, Inc., of 6 Twelfth Street, Carle Place, NY 11514. Cross Island Welding & Equipment Repair subleased its premises for only the brief period of time indicated on its lease, ending in May, 1991.

Bartlett has not leased, subleased, or otherwise permitted any other individuals or entities to operate at the Property at any time currently or in the past.

This information was derived from a number of documents submitted with this response package. The accompanying Index identifies which documents contain information used in the response to this question. Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

- d. *Any portion of any Property which was transferred or sold, and the block and lot number, the date of the transfer or sale, the sale price and the entity that acquired the Property;*

The Property has not been transferred or sold to any third parties since Bartlett's acquisition.

This information was provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

- e. *The relationship, if any, between your Company and each of the individuals and/or other entities identified as having leased or operated at each Property;*

There is no relationship between Bartlett and the sole tenant, Cross Island Welding & Equipment Repair ("Cross Island"), other than the brief tenancy Cross Island held at the Property.

This information was provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

- f. *Your Company's involvement in all operations conducted by each lessee and/or other individual or entity identified in response to question 3c., above; and*

Bartlett had no involvement in Cross Island's operations.

This information was provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

- g. *For each Property, provide all documents relevant to your responses to questions 3a.- 3f., above, and provide copies, including, but not limited to, copies of surveys, title search documents, deeds, rent rolls, leases and correspondence.*

Bartlett has included copies of the surveys, leases and other documents in its possession, and has provided all information available to it regarding any documents it could not locate or identify above. The documents are listed on an Index accompanying this production, which also designates which question(s) each document responds to.

Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F. Portions of this information were provided by Frank Williams, PG, Brown & Caldwell, 234 Hudson Avenue Albany, New York 12210.

4. *Provide copies of all maps, building plans, floor plans and/or drawings for each Property identified in response to question 2., above. Your response to this question should include, but not be limited to, providing plumbing and drainage system plans for all structures on each Property:*

Please see Index #2 and the Remedial Investigation Report (Index #28), Appendix A, for all floor plans that have been identified with due diligence, including via request to local code enforcement and other authorities. The reports referenced in the Index as responsive to this question describe Bartlett's efforts to obtain these documents.

This information was provided by Frank Williams, PG, Brown & Caldwell, 234 Hudson Avenue, Albany, New York 12210.

*For both current (if still in operation) and past operations during the period of time that the Company was at a Property, please identify and provide a description of:*

- a. *all surface structures and features (e.g., buildings, above-ground storage tanks, paved, unpaved areas and parking lots, and dates when paved areas were paved);*

The Property configuration currently consists of a two-story office/garage structure with asphalt paved driveway and parking areas. Nearly all the ground surface is paved and serves as a parking area for tree care vehicles. Some areas of the parking area are temporarily unpaved and are pending construction of a storage structure and repaving, which is expected to occur after remediation of the Property is complete. The facility is accessed from Union Avenue via two driveways located on either side of the Bartlett office building. A chain link fence extends along the western and northern property boundaries, with a smaller section of fencing traversing the property from east to west and enclosing the northern parking/storage areas. Bartlett's service vehicles are parked in the northern portion of the Property and, temporarily, in a locked garage on the ground floor of the office building near the facility entrances on Union Avenue.

Until they were demolished in 2008, three additional structures were present on the Property: a garage; an enclosed storage shed; and an open shed. These structures were demolished to create more space for Bartlett's service vehicles and for temporary storage of nursery stock. Please see the Technical Memorandum and the documents submitted with this production, which are identified on the Index, for more information.

This information was derived from a number of documents submitted with this response package. The accompanying Index identifies which documents contain information used in the response to this question. Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F, and portions of this information were provided by Frank Williams, PG, Brown & Caldwell, 234 Hudson Avenue Albany, New York 12210, the primary author of the reports and Technical Memorandum submitted with this response package.

- b. *all past and present plumbing systems, above and below-ground discharge piping, sumps, storm water drainage systems, sanitary sewer systems, septic tanks, dry wells, subsurface disposal fields, and underground storage tanks ; and*

Water and sewer service is currently provided by the municipality. Sanitary wastes may have been initially discharged to an on-site cesspool or drywell (Drywell 1) located in the northern portion of the Property, approximately 20 feet south of the former open shed. Drywell 1 is classified as an EPA on-site injection well Type 5X27 (other wells). Located approximately 65 feet from the north property boundary, it may have originally been part of the carriage manufacturing facility that predated Bartlett's occupancy. Prior to its removal in 2012, Drywell 1 was covered with a solid cast iron lid which prevented most stormwater runoff from entering. Drilling through the structure indicated a hard base at

approximately 6 feet bgs. The status of Drywell 1 is TA (temporarily abandoned) pending completion of IRM for this drywell. After Bartlett investigated Drywell 1 in 1987, it was backfilled with sand out of concern that it could cave in due to the heavy traffic in the driveway.

Architectural plans from 1963 (Appendix A of the Remedial Investigation Report, Index #28, attached) show a potential second drywell or cesspool (Drywell 2) at a location approximately 112 feet north of the current office building, adjacent to the west wall of the garage, in an area that is now paved. Investigations conducted as part of the RI indicate that Drywell 2 does not exist and was probably never constructed. Sanitary wastes from the two story office/garage structure were discharged to a concrete drywell/cesspool (Drywell 3) located near the northwest corner of the structure. This drywell is classified as an EPA on-site injection well Type 5W31 (septic system). No connections to floor drains or other structures were identified during abandonment activities. The drywell was covered with a solid cast iron lid that would have prevented most stormwater runoff from entering the drywell. Drywell 3 was decommissioned in 2009 after the office/garage sanitary system was connected to the municipal sanitary sewer on Union Avenue. During decommissioning, impacted materials were removed from the drywell and it was filled with flowable fill. The DEC approved the abandonment on July 27, 2010. The status is PA (permanently abandoned).

The aforementioned architectural plans show the floor drain at the base of the exterior stairwell on the north side of the office building. The drain was classified as an EPA on-Site injection well Type 5D2 (stormwater drainage well). The floor drain received storm water runoff from the surrounding paved areas. The plans show the floor drain connecting to a pre-cast dry well located a few feet to the north and west of the stairway (presumably Drywell 3). The floor drain was abandoned by filling the cavity with Portland concrete. The DEC approved the abandonment on July 27, 2010. The status is PA (permanently abandoned). During the closure of Drywell 3 it was determined that no connection to Drywell 3 existed, and that the stairwell floor drain discharged directly to the sandy soil underling the stairwell.

The office building is currently heated by a natural gas-fired furnace located in a room on the first floor near the northwest corner. Bartlett contacted the Westbury Fire Department in an effort to identify any records pertaining to potential former fuel storage tanks at the facility, but was informed that the department only has records dating to 2002, which are limited to identifying the type of heat a facility has. Architectural plans obtained from the Westbury Building Department suggested the possibility that an underground fuel oil storage tank may have been in use at one time. (Plans that were obtained are being submitted with this response package.) Plans dated 1964 provide for the addition of an exterior stairway on the north side of the building, an exterior heater room, and a buried 350 gallon fuel oil tank approximately four feet north of the heater room. However, later plans dated 1966 show the exterior stairway as “existing” but do not show the heater room. Currently, the exterior stairway exists but there is no

structure that corresponds to the heater room, indicating that the heater room was not built. Subsurface investigations completed at the Property, which are described in the RIR submitted herewith, found no evidence of a fuel oil tank.

For more information, please see the Technical Memorandum and the documents submitted with this production, which are identified on the Index. This information was derived from a number of documents submitted with this response package. The accompanying Index identifies which documents contain information used in the response to this question. Portions of this information were provided by Frank Williams, PG, Brown & Caldwell, 234 Hudson Avenue Albany, New York 12210, the primary author of the reports and Technical Memorandum submitted with this response package.

- c. *all currently existing and previously existing chemical and industrial hazardous substance storage, transfer, spill and disposal areas;*

During the extensive investigation and remediation work completed by Bartlett at the Property, Bartlett gained significant knowledge of the location of various structures on site where historical storage, transfer, spill, or disposal may have occurred. The location and background relating to these areas is described below, as well as the relevant remedial investigation, including sampling results.

#### Storage of Plant Health Care Materials

To the extent any plant health care materials used by Bartlett constitute chemical and/or industrial hazardous substances, formerly, small amounts of plant health care materials were stored in a locked, fire proof storage container within a locked structure located midway along the eastern side of the facility, adjacent to the former garage. This storage structure had a concrete floor and met or exceeded all relevant state and federal regulations for the storage of such materials. Granular fertilizers and chainsaw bar oil were also stored in the storage structure. After the aforementioned buildings were demolished, the locked, fire proof storage container was relocated adjacent to the north side of the two-story office/garage structure. This container also meets or exceeds all relevant state and federal regulations for pesticide storage, including a containment berm and impervious floor. Bartlett is not aware of any current or former pesticide storage area other than the locked, fire proof storage structure.

Although no information had been identified that indicated the existence of any pesticide storage area other than the locked, fire proof storage container within the structure near the former garage, and there was no evidence that the open shed at the north end of the Property was ever used for pesticide storage, the DEC requested soil sampling in the area of the open shed as well as the pesticide storage area adjacent to the former garage. Soil samples were collected in October 2008 within the footprint of the former structure. Other than the

common laboratory contaminant methylene chloride, no VOCs or PCBs were detected in any of the soil samples from this area. A number of PAHs and Carbazole were detected, primarily in the shallow sample immediately beneath the asphalt floor, which suggests that the PAHs may be from particles of asphalt incorporated in the soil sample. Detected pesticides/herbicides consisted of 2-methyl-4-chlorophenoxyacetic acid (MCPA); gamma-BHC (Lindane); alpha- and gamma-Chlordane; DDT (with its breakdown products DDD and DDE); Dieldrin; Endosulfan II; Endrin aldehyde; Ethion; and Methoxychlor. None of the pesticide/herbicide concentrations exceeded the SCO for Protection of Public Health – Commercial Use, and Protection of Groundwater. Mercury was detected in the shallow sample at a concentration above the Protection of Groundwater SCO. A number of other metals were detected in the shallow soil sample at concentrations above those typically found elsewhere on the Property, but below the SCO for Protection of Public Health – Commercial Use, and Protection of Groundwater. Given that no VOCs were detected here, this area could not have contributed to groundwater contamination at the Site.

#### Drywell 1

On May 5, 1987, Bartlett investigated a report that an abandoned “cistern” at the Westbury facility (now known as Drywell 1) allegedly held empty pesticide containers. In April 1990, an anonymous caller to the DEC alleged that pesticides and herbicides were periodically placed into Drywell 1 prior to abandonment in 1983. Upon investigation, Bartlett found that Drywell 1 was partially filled with water, which was sampled. Bartlett also recovered two Sevin containers (empty, crushed 5-gallon metal pails). After the inspection, Drywell 1 was backfilled with clean sand out of concern that it could cave in under heavy traffic in the driveway. The sample of the standing water in Drywell 1 was submitted to an independent laboratory for testing. The pesticide diazinon was detected at 0.61 parts per million (ppm). Sampling occurred in and near the Drywell in 2008. VOCs detected in the soils were limited to methylene chloride and acetone at concentrations below applicable SCOs. Both VOCs are common laboratory contaminants. No SVOCs were detected. Together, the VOC and SVOC results indicate these locations are not impacted by solvents (primarily petroleum distillates) that were typically used as carriers for pesticide and herbicide solutions.

The concentrations of metals detected in the soils surrounding Drywell 1 are consistent with metals concentrations found across the Property and, therefore, probably reflect typical urban background conditions. The metals results indicate that the soils adjacent to the drywell are not impacted by inorganic pesticides/herbicides that contained metals such as copper, lead, and arsenic. Pesticides/Herbicides detected in the soils at the 2008 sampling locations around

Drywell 1 consist of DDT (with its breakdown products DDD and DDE), Dieldrin, and Methoxychlor. With the minor exception of Dieldrin in boring SB-3 (0.11/0.12 mg/kg), none of the pesticides/herbicides exceed the SCO's for Protection of Public Health – Commercial Use, and Protection of Groundwater.

In 2010, a boring was advanced through Drywell 1 to assess potential pesticide and VOC impacts within and beneath the drywell. A tar-like odor was noted from soils collected from 12 to 22 ft. bgs, and a hydrocarbon odor and evidence of black staining was noted on soils from 34 to 36 ft. bgs. PID readings ranged from 1.7 to 41.8 parts ppm within the stained and/or odor emitting intervals. VOCs detected in the soils beneath Drywell 1 at concentrations exceeding the applicable SCO's consisted of ethylbenzene, total xylenes, and methylene chloride. Concentrations of ethylbenzene and total xylenes exceeded their respective SCO's for Protection of Groundwater. Those exceedances were observed in two soil samples (12-14 and 14 16 ft. bgs) collected from intervals exhibiting elevated PID readings, odors and/or staining. Ethylbenzene and xylenes are components of petroleum distillates, (carriers for pesticide solutions). Methylene chloride, a common laboratory contaminant, was detected at a concentration above the SCO for Protection of Groundwater in one sample (38-40 ft. bgs); however, methylene chloride was not detected in groundwater. Pesticides/herbicides detected above the applicable SCO's in the soils beneath Drywell 1 consisted of DDT (and its degradation product DDD), Aldrin, Dieldrin, and gamma-BHC (Lindane). No exceedances of the applicable SCO's were detected in the soil sample collected at the bottom of boring (38-40 ft. bgs), thereby vertically delineating the exceedances in the soil matrix.

The aforementioned sampling for pesticides/herbicides in the soils adjacent to Drywell 1 indicate that, with the minor exception of Dieldrin in SB-3, no pesticides or herbicides exceed the SCO's for Protection of Public Health – Commercial Use, and Protection of Groundwater in this surrounding area. Additionally, there was no evidence of odors and/or staining, and PID readings for all borings remained at background concentrations. Thus, the 2008 and 2010 data indicated the horizontal limits of significant soil impacts were confined to a column of soil beneath Dry Well 1.

The 2010 sampling results from Drywell 1 were compared with the 1996 PSA completed by DEC which includes data from the same location. Previously, the VOCs, benzene, ethylbenzene and total xylenes exceeded the now obsolete TAGM 4046 recommended soil cleanup objectives (RSCOs) in use at that time. Benzene was not detected in the 2010 sampling and the 2010 concentrations of ethylbenzene and total xylenes were significantly less than the 1996 concentrations. Previously, the pesticides DDT (and its degradation products DDD and DDE), dieldrin, gamma-BHC (Lindane), Methoxychlor, alpha-and

gamma-chlordane exceeded the TAGM 4046 RSCOs. The 2010 concentrations of those pesticides were similar to or less than the 1996 concentrations. In fact, the 2010 concentrations of DDT were an order of magnitude less than those of the 1996 sampling. The data for soils under Drywell 1 indicate that, at least for the VOC's and DDT, natural attenuation occurred over the 14 years that elapsed since the PSA sampling.

In 2011, in anticipation of an IRM to remove impacted soils associated with Drywell 1, additional soil borings were advanced for the purpose of delineating soils that might require management as listed hazardous waste. A soil boring was advanced through Drywell 1 for the purpose of confirming the concentrations of pesticides identified in previous samples. The analytical results for these samples confirm that exceedances of the SCOs for DDD and DDT extend downward from the base of Drywell 1 to the zone of water table fluctuation. The exceedances of the SCOs for DDD and/or DDT generally extended outward from the axis of the drywell to the inner set of delineation borings, but not to the outer set placed several feet further away from the Drywell. No VOCs were detected in excess of respective SCOs in any of the 2011 sample locations. In 2012, Bartlett conducted an IRM to remove Drywell 1 and the associated contaminated soils down to the depth of the water table. Confirmation sampling was completed, which detected no VOCs in either post-excavation sample. The pesticide Dieldrin was detected in one of the post-excavation samples. The pesticides DDT, DDD, DDE, and gamma Chlordane were detected in both samples. The concentrations of the detected pesticides are comparable to those detected in the 28-32 foot depth interval during the previous investigation of Drywell 1. The status of Drywell 1 is TA (temporarily abandoned) pending completion of IRM for this drywell.

Overall, although the SCOs for protection of groundwater indicate a potential for these soils to have adversely impacted groundwater quality under certain conditions, no such impacts actually occurred. This is not surprising given the separation of the impacted soils and the water table of 15 feet or more. Further, because the impacted soils were removed, any such potential no longer exists.

### Drywell 2

The sampling of the suspected Drywell 2 area (which drywell was found not to exist) revealed no VOCs other than the common laboratory contaminants acetone and methylene chloride based on soil samples collected. No SVOCs or PCBs were detected. Pesticides/Herbicides detected in the soil samples consist of DDT (with its breakdown products DDD and DDE) and Methoxychlor. None of the pesticide/herbicide concentrations exceed the SCOs for Protection of Public Health – Commercial Use, and Protection of Groundwater. The concentrations of metals detected in the samples do not differ substantially from concentrations

found elsewhere on the Property and are consistent with a typical urban background. As stated above, given that no VOCs were detected in this area, it is not likely that it contributed to groundwater contamination of the Site.

### Drywell 3

Drywell 3 was also investigated for the potential of historical spills. In 2008, visual inspection of Drywell 3 through its manhole had revealed a below grade structure filled with liquids and suspended solids associated with sanitary sewage. A thin layer of LNAPL with a petroleum like odor was noted on the surface of the liquids/suspended solids. The source of these materials was not identified. Analysis of a solid material sample at the base of the dry well revealed concentrations of ethylbenzene, toluene, and total xylenes exceeded the Protection of Groundwater SCOs. No other VOCs were detected, and no other analytes of any category exceeded the SCOs for Protection of Public Health – Commercial Use, and Protection of Groundwater. SVOCs detected in the solids consisted of naphthalene and 2 methylnaphthalene (constituents of petroleum distillates such as diesel and fuel oil), phenanthrene (a common polynuclear aromatic hydrocarbon compound or PAH), and bis(2 ethylhexyl)phthalate (a common plasticizer). No PCBs were detected.

Pesticides/herbicides detected in the solids consisted of MCPP [2 (2 Methyl 4-chlorophenoxy)propionic acid], DDT (with its breakdown products DDD and DDE), alpha and gamma Chlordane, and beta BHC. The concentration of copper in the solids sample was higher than elsewhere on the Property and may reflect elevated copper levels typical of septic waste. The concentrations of other metals do not differ substantially from concentrations found elsewhere on the Property and are consistent with a typical urban background.

The gas chromatograph (GC) fingerprint for the NAPL sample was most similar to the laboratory's Diesel/Number 2 Fuel Oil reference chromatogram. When the laboratory calculated total sample area in the C8 C40 normal hydrocarbon range as petroleum distillate, it was found to be present at 84% by weight. The detected VOC and SVOC analytes consisted of ethylbenzene, toluene, total xylenes, naphthalene, 2 methyl naphthalene, fluorene and phenanthrene, all potential constituents of Diesel/Number 2 fuel oil. The NAPL sample also included methylene chloride, a common laboratory contaminant. No PCBs were detected. Detected pesticides/herbicides consisted of part per billion concentrations of 2,4 DB; 2,4,5 T (trichlorophenoxyacetic acid); and alpha Chlordane. Such concentrations are low considering the relatively high solubility of most pesticides in petroleum distillates.

The analytical results collected from a soil boring which was installed presumably downgradient of Dry Well 3 indicate these soils were not impacted by the drywell contents. No VOCs other than the common laboratory contaminants acetone and methylene chloride were detected, in contrast to the ethylbenzene, toluene, and xylenes detected in the sample of solids from the base of Drywell 3. No SVOCs or PCBs were detected. Pesticides/Herbicides detected in the samples from SB-8 consist of alpha and gamma Chlordane; and DDT (with its breakdown products DDD and DDE). None of the pesticide/herbicide concentrations exceed the SCOs for Protection of Public Health – Commercial Use, or Protection of Groundwater. The concentrations of metals detected in the samples from the soil boring do not differ substantially from concentrations found elsewhere on the Property and may reflect typical urban background.

The petroleum product(s) and pesticides/herbicides detected in the materials contained within Drywell 3 indicated the need to terminate its use as a cesspool and properly close it. The closure activities were conducted on August 4 and 5, 2009, in accordance with an approved closure Work Plan (BC, February 2009), the results of which were submitted to the DEC in Remedial Action Report for Dry Well 3 and the Mechanics Pit (Brown and Caldwell, March 2010), Index # 18. The closure consisted of the removal of the Drywell 3 contents (solids and liquids) and their off-site disposal in permitted facilities. Approximately one foot of sandy material was removed from the open bottom of Drywell 3. The drywell was found to have no connections to the floor drain located in the exterior stairwell on the north side of the Office Building or to the mechanic's pit located in the ground floor of the Office Building. After sampling and the inspection of Drywell 3 was complete, the well was backfilled using 50 psi flowable fill (concrete) material. After the completion of all removal activities and before backfilling the drywell, confirmation samples were collected at the base of the removal area (i.e., the drywell floor) and 18" to 24" below the base of the removal area. The analytical results indicate that there were no exceedances of applicable SCOs in the soil remaining under the drywell. Therefore, all potentially impacted materials have been addressed and the closure of Drywell 3 is considered complete. As with Drywell 1, any potential contamination of groundwater did not occur here as the impacted soils were separated from the groundwater table by 15 feet or more, and in any event, the impacted soils were removed, therefore no potential for contamination exists.

#### Stairway Floor Drain

During the closure of Drywell 3, the cover of the Stairway Floor Drain was removed and its contents were inspected and sampled. The interior of Drywell 3 was inspected to identify any drain pipe potentially connected to the floor drain. The potential for connection between Drywell 3 and the Stairway Floor Drain

was tested by introducing water into the drain and observing the interior of Drywell 3 (after cleaning) for evidence of drainage. None was observed. A representative of the NCDH who was present during the test, concurred that the drain did not connect to Drywell 3. It appears that the stairway floor drain discharged storm water directly to the subsurface soils immediately under the drain. A sample of the soils located in the bottom of the drain was collected. This sample was submitted for analysis of VOCs, SVOCs, pesticides, herbicides, PCBs, and metals.

Analytical results indicate the soil material in the floor drain contains the PAH compound benzo(a)pyrene at a concentration slightly above the SCO for protection of human health. However, direct human contact with the soil under the stairway floor drain was restricted by the drain cover. The concentrations of two other PAHs, benzo(b)fluoranthene and chrysene, and one metal, chromium, slightly exceed the SCOs for protection of groundwater. The PAHs could be present at these low concentrations due to run-off from the asphalt parking lot and driveway area, and are not expected to be associated with the historic operations of the Property. The chromium impact is only slightly over SCO and is not expected to be an environmental concern. This is because (per the technical support document for development of the SCOs) the protection of groundwater SCOs are based on the conservative assumptions that 1) contaminated soil and groundwater are in direct contact; and 2) there is a continuous flow of leachate and an infinite source of contamination. The slight exceedances noted in the soil under the stairway floor drain are unlikely to impact groundwater because the flow of stormwater through these soils is intermittent and the volume of soil through which that flow occurs is limited.

Due to the location of this drain, and the relatively low concentrations of compounds which exceed DEC soil cleanup objectives, the DEC concurred that no further action was needed for the drain. Bartlett subsequently eliminated the need for the floor drain by diverting stormwater from the surrounding pavement, and then abandoned the drain by removing the metal cover and filling the hole with concrete. Due to the location of this drain, and the relatively low concentrations of compounds which exceed DEC soil cleanup objectives, no further action was recommended by DEC for this area. Given DEC approval of the completed remedial activities at this location, the thirty feet separating potential contaminants from groundwater, and the low likelihood of impacting groundwater due to lack of exposure to stormwater, no risk of contamination to groundwater at the Site exists here. In fact, the soil concentrations here were so far below the relevant SCOs for protection of groundwater that there would be no threat to groundwater quality even if they were somehow exposed to potential leaching by precipitation.

### Mechanic's Pit

A mechanic's pit located in the ground floor of the office building was also identified by DEC as an area where potential spills may have occurred. Bartlett investigated and closed this area. The mechanic's pit on the ground floor of the office building was closed on August 4 and 5, 2009, in accordance with an approved closure Work Plan (BC, February 2009, Index #15), the results of which were submitted to the DEC in Remedial Action Report for Dry Well 3 and the Mechanics Pit (Brown and Caldwell, March 2010), Index #18. During closure activities, the wooden planking over the mechanics pit was removed. The stone backfill was removed from the pit using a small excavator and placed on poly sheeting adjacent to the pit. Inspection of the stone backfill and screening with a photoionization detector (PID) did not reveal evidence of obvious contamination (e.g., staining, odors, elevated VOC levels). The interior of the pit was inspected and determined to have a floor of solid concrete. The concrete walls and concrete floor slab did not evidence staining nor any cracking or visible pipe entries or exits. There were no drains exiting the pit.

During closure activities, gravel backfill was removed from the former mechanics pit. Discolored soil material was removed from the surface of the concrete floor slab in the mechanics pit. The discolored material contained concentrations of arsenic, chromium, lead, mercury and gamma-BHC (also known as Lindane) in excess of the Part 375-6 Soil Cleanup Objectives (SCOs) for protection of groundwater. The concentration of arsenic also exceeded the SCO for protection of human health. All this soil material was collected and containerized in a 55-gallon DOT-approved drum for disposal. Sampling of the soil beneath the concrete floor slab of the pit indicated that the soil had not been impacted by the contaminants in the material above the concrete slab. The DEC and NCDH indicated that no further investigation or remediation of the Mechanic's Pit was required. As with the stairwell floor drain, with 30 feet separating any potential contaminants from groundwater and the very low concentration of chlorinated VOCs, there is no threat to groundwater quality here, even if the contaminants were somehow exposed to potential leaching by precipitation.

### Other Investigations

Further investigations have occurred at the Property pursuant to the Consent Order, including investigations to determine whether underground storage tanks are present at the Property, and if releases to shallow soil occurred. A geophysical survey performed at the Property identified two small areas of electromagnetic anomalies and GPR reflectors. An anomaly identified in the northeast portion of the Property was termed Anomaly 1, and a second anomaly adjacent to the exterior stairs on the north side of the office building was referred

to as Anomaly 2. In a letter to DEC (BC, June 24, 2008) excavation of test pits at these anomalies (rather than soil borings) was proposed to avoid the risk of drilling through a potential buried container or UST.

The test pit for Anomaly 1 encountered fill consisting primarily of sand and clayey silt. Two north south oriented pipes were uncovered: a 4 inch diameter cast iron pipe and an overlying, 1 inch diameter steel pipe. These metallic objects are considered to be the cause of the geophysical anomalies identified in this area. The pipes are not known to be in use by the Bartlett facility and their origins, purposes and contents are unknown. Because the functions of the pipes are unknown, the test pit excavation was terminated at 1.5 feet bgs to avoid undermining or damaging the pipes. No staining of the fill was observed around the bell/spigot joints of the cast iron pipe, and all VOC readings on the PID were zero. A sample of soil was also collected in the vicinity of the pipes. Low (less than 1 ppm) concentrations of the following VOCs were detected: acetone; cis 1,2 dichloroethene; methyl ethyl ketone (MEK); methylene chloride; PCE; and TCE. Of these, only the concentration of acetone exceeded a SCO (Protection of Groundwater). The only SVOCs detected were PAHs (possibly from the asphalt paving) at concentrations below their SCOs. No PCBs were detected. Detected pesticides/herbicides consisted of gamma BHC (Lindane); alpha and gamma Chlordane; DDT (with its breakdown products DDD and DDE); and Dieldrin. None of the pesticide/herbicide concentrations exceeded their SCOs. A number of metals were detected at concentrations above those typically found elsewhere on Property, but below the SCOs.

For Anomaly 2, located adjacent to the exterior stairs on the north side of the office building, a test pit was excavated to a depth of approximately 5 feet bgs. No evidence of a UST was found. The test pit encountered fill comprised of variable mixtures of sand and gravel, silty clay, coal, cinders and bricks. All PID readings were zero. A sample of the fill was collected from approximately 1 2-feet bgs. The only VOC detected was the common laboratory contaminant methylene chloride at a concentration below the SCOs. The only SVOCs detected were PAHs (common in urban areas and present in asphalt paving) at concentrations below their SCOs. No PCBs were detected. Detected pesticides/herbicides consisted of gamma BHC (Lindane); alpha Chlordane; DDT (with its breakdown products DDD and DDE); Dieldrin; and Methoxychlor. None of the pesticide/herbicide concentrations exceeded their respective SCOs. Mercury was detected at a concentration above the SCOs. Several other metals were detected at concentrations above those typically found elsewhere on the Property, but were below their respective SCOs.

Investigations occurred near the open shed formerly located at the north end of the Property, which was demolished in July 2008. Other than the common

laboratory contaminant methylene chloride, no VOCs, SVOCs, or PCBs were detected in any of the soil samples from this area. Detected pesticides/herbicides consisted of 2,4 D; DDT (with its breakdown products DDD and DDE), alpha-Chlordane; gamma-BHC; and Methoxychlor. None of these concentrations exceeded the SCOs for Protection of Public Health – Commercial Use, and Protection of Groundwater. The concentrations of metals detected in the samples do not differ substantially from concentrations found elsewhere on the Property and are consistent with typical urban background.

Overall, the RI data demonstrate that the only VOC resides on the Property that had a potential to impact groundwater quality never actually did, and Bartlett's extensive remedial actions ensure no impacts will occur in the future.

Please see the Technical Memorandum and the documents submitted with this production, which are identified on the Index, for more information. This information was derived from a number of documents submitted with this response package. The accompanying Index identifies which documents contain information used in the response to this question. Most of this information was provided by Frank Williams, PG, Brown & Caldwell, 234 Hudson Avenue Albany, New York 12210, the primary author of the reports and Technical Memorandum submitted with this response package.

5. *For each Property identified in question 2., above, at which your Company conducted operations, describe in detail the manufacturing processes and/or other operations that your Company conducted at the Property, and identify the years during which your Company conducted operations there. If those operations were not constant throughout your Company's operations, describe the nature of all changes in operations, and state the year of each change. If detailed information about your Company's operations is not available, provide, at a minimum, a general description of the nature of your Company's business at the Property, the years of operation, the type of work your Company conducted, and the number of employees for all the operations:*

No manufacturing processes occurred at the Property during Bartlett's occupancy. Since the mid-to late 1950s, the Property has been used by Bartlett as a base for tree maintenance services, including applications of pesticides and herbicides on clients' properties. Bartlett provides tree and shrub care services, including tree trimming, tree cabling, storm damage removal, fertilization and soil management, plant analysis and diagnostics, and pest management to residents of Queens County, Kings County, and Nassau County, New York at their residences and businesses. These operations have been constant throughout Bartlett's years of operations. Generally, Bartlett has between 10-15 employees for its operations.

Portions of this information were provided from publicly available sources, as

well as by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F. Portions of this information were provided by Frank Williams, PG, Brown & Caldwell, 234 Hudson Avenue Albany, New York 12210, the primary author of the reports and Technical Memorandum submitted with this response package.

6. *With respect to industrial wastes at a Property:*

- a. *List all industrial wastes that were used, stored, generated, handled or received by your Company at the Property. Your response to this question should include, but not be limited to, use, storage, generation and/or handling of trichloroethylene ("TCE"), tetrachloroethylene ("PCE"), 1,1,1-trichloroethane ("1, 1,1-TCA") and other chlorinated or non-chlorinated solvents. Be as specific as possible in identifying each chemical, and provide, among other things, the chemical name, brand name, and chemical content;*

Generally, Bartlett does not engage in manufacturing, so no industrial waste is generated on site. To the extent any products that ultimately would be treated as industrial waste are used by Bartlett, these products make up a minute portion of Bartlett's waste stream. The vast majority of waste generated by Bartlett is green waste, such as wood, leaves, and mulch. These wastes are typically generated at locations outside of the Property, i.e. at the customers' properties where tree maintenance services are provided. The only products that could be considered an industrial waste are the pesticides used by Bartlett.

The pesticides used by Bartlett on an annual basis include the following:

Accord	2.5 Gallons per year
Alamo	1 Quart per year
Astro	8 Gallons per year
Baseline	24 Quarts per year
Conserve	24 Quarts per year
Distance IGR	10 Quarts per year
Kocide	20 Pounds per year
Lucid	12 Quarts per year
Pyronyl	10 Quarts per year
Rainbow Hort Oil	20 Gallons per year
Reliant	2 Gallons per year
Round Up Quick Pro	3 Pounds per year
Talstar P	6 Gallons per year
Trimtec Plus	1 Gallon per year
Xytect 2F	9 Gallons per year

These pesticides are generally products routinely available for sale for use by residents from stores such as WalMart or Home Depot, which Bartlett uses in the typical concentration used by individuals at their homes. The volumes recited above are the quantities used per year, meaning that only a fraction of those volumes are typically present at the Property. The chemical name, brand name, and chemical content of the pesticides currently used by Bartlett are thoroughly described on the label specimens for the pesticides, which have been provided as part of this response package. (Index ##29-44).

The products are stored in the pesticide storage container, which is built to EPA and DEC standards for pesticide storage, including an impervious floor, containment berm, and fireproofing. Bartlett orders the products from different distributors. They are shipped via an overnight carrier, after which point Bartlett employees bring the products to the pesticide shed and record them in inventory. Bartlett technicians, which include a small number of Bartlett's employees, mix the proper quantities of pesticide at the customer's property. The quantities used typically are in the order of a few ounces per 100 gallons of water. Only the portion required for a customer's needs is prepared. Consistent with DEC and EPA-required practice, when the pesticide container is empty, it is triple rinsed back into Bartlett's mixing tanks on their service vehicles, and the containers are recycled or landfilled as municipal waste.

The Technical Memorandum discusses the presence of any substances that could be attributed to wastes used, stored, generated, handled or received by Bartlett at the Property, concluding that the substances present relate predominantly to pesticide use, and that TCE, PCE, DCE and other chlorinated or non-chlorinated solvents were generally not disposed of at this Property, but instead appear to have migrated from locations offsite. Those wastes are identified above in Bartlett's Response to Question 4(c), as well as in the accompanying investigations and reports submitted with Bartlett's Response, and in the Technical Memorandum.

This information was derived from a number of documents submitted with this response package, including the pesticide information and labels referenced above. The accompanying Index identifies which documents contain information used in the response to this question. Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F. Portions of this information were provided by Frank Williams, PG, Brown & Caldwell, 234 Hudson Avenue Albany, New York 12210, the primary author of the reports and Technical Memorandum submitted with this response package.

- b. State when each industrial waste identified in your response to question 6a., above, was used, stored, generated, handled or received, and state the volume of*

*each industrial waste used, stored, generated and/or handled on an annual basis; and*

As stated, Bartlett does not engage in manufacturing so it does not produce industrial waste. The only substance used by Bartlett that could be considered to generate industrial waste is the pesticides which Bartlett uses in its ordinary business practices. As discussed in the Response to Question 6(a), the approximate volume of pesticides used per year is small, in the range of a few gallons per year of product. As stated in the Response to Question 6(a) above and Response 7, below, Bartlett properly manages the containers in accordance with State and Federal practices, and the containers, and their rinse water, are properly disposed of.

This information was derived from a number of documents submitted with this response package, including the pesticide information and labels referenced above. The accompanying Index identifies which documents contain information used in the response to this question. Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

- c. *Describe the activity or activities in which each industrial waste identified in your response to question 6a., above, was used, stored, handled or received.*

To the extent the pesticides could be considered industrial waste, Bartlett uses pesticides to manage and treat its clients' trees. Bartlett's practices of using, storing, handling and receiving the pesticides are described in the Response to Question 6(a).

This information was derived from a number of documents submitted with this response package, including the pesticide information and labels referenced above. The accompanying Index identifies which documents contain information used in the response to this question. Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

7. *Describe in detail how and where the industrial wastes identified in response to question 6., above, were disposed. For each disposal location and method, state the nature and quantity of the material disposed of on an annual basis. For those time periods when a precise quantity is not available, provide an estimate:*

With respect to the vast majority of waste generated by Bartlett, those wastes are typical solid wastes which are disposed of at the proper facilities. All wood, wood chips, branches and green waste, are brought to Vigliotti Recycling Corp.,

Yard Waste Transfer Facility, at 100 Urban Ave, Westbury, NY 11590. This facility is a certified, secured dump which is able to accept all wood waste. For all debris created on various job sites that requires a waste transfer company to come to the site to take the waste, the company used is Beaver Industries, Inc., 1200 Townline Road, Hauppauge, NY 11788. This company brings roll off dumpsters that are filled with wood and debris, then comes to collect it. There are no records of ever using the New Cassell/Hicksville dump, nor does any person currently working at Bartlett's office have any knowledge of ever using this dump for any waste disposal.

With respect to the pesticides used by Bartlett, Bartlett complies with New York State and EPA requirements for pesticide container management. Some pesticide containers are triple rinsed, washed, and recycled. All other pesticide containers are triple rinsed, washed, and placed in the trash as normal waste, which is picked up weekly by the local municipality. Given the small quantities of pesticide maintained by Bartlett, Bartlett disposes of or recycles a small number of pesticide containers on an average basis, in the order of no more than a few per week. As stated in the Response to Question 6(a), no rinse water is disposed of, it is all reused.

This information was provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

8. *Describe in detail any knowledge your Company has about intentional or unintentional disposal of industrial wastes at each Property identified in response to question 2., above, including, but not limited to, TCE, PCE and/or other chlorinated or non-chlorinated solvents or wastes containing such solvents, at any time currently or in the past. Your response should include instances in which industrial wastes were spilled or otherwise disposed onto or into the floors or the ground from septic systems, pipes, drains, drums, tanks, or by any other means. Provide copies of all documents relevant to your response:*

The Technical Memorandum discusses the presence of industrial wastes at the Property, concluding that the substances present relate predominantly to pesticide use, and that TCE, PCE, and other chlorinated or non-chlorinated solvents were not generally disposed of at this Property, but instead appear to have migrated from locations offsite.

Bartlett is unaware of any disposal of industrial waste, and in particular, of TCE, PCE and/or other chlorinated or non-chlorinated solvents or wastes, that occurred at the Property as part of Bartlett's operations. However, the extensive investigations of the Property have revealed potential historical spills or other discharges that occurred. These instances have been described in detail in

Response to Question 4(c) above, as well as in the Remedial Investigation Report and other reports prepared in relation to the Property, and the Technical Memorandum, all of which are submitted with this response.

Additionally, Bartlett's lease with George Oil Corp. of Lot 786 from July 1, 1988 to June 30, 1991 (Index # 3 submitted herewith), reserves George Oil Corp.'s right to access the property "in the area where Landlord formerly maintained underground oil tanks so as to permit such maintenance and testing as is required by any environmental agency." Lease at p. 5. Bartlett has no knowledge of George Oil Corp.'s operations, the presence of any underground oil tanks, or any maintenance and testing requirements. Additionally, Bartlett never observed George Oil Corp., or anyone acting on their behalf, accessing the leased premises to maintain or test the tanks. This lack of knowledge is likely due to the limited lease term, and Bartlett's sporadic access of this area (i.e. to access or drop off vehicles.)

This information was derived from a number of documents submitted with this response package. The accompanying Index identifies which documents contain information used in the response to this question. Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

9. *Identify all leaks, spills, or releases of any kind of any industrial wastes (including, but not limited to, TCE and PCE or other chlorinated or non-chlorinated solvents or wastes containing such solvents) into the environment that have occurred, or may have occurred, at or from the Property, including any leaks or releases from drums and other containers. Provide copies of all documents relevant to your response:*

See Bartlett's Response to Question 8.

10. *Explain whether any repairs or construction were implemented to address any leaks, spills, releases or threats of releases of any kind, the nature of the work and the dates of any such work. Provide copies of all analyses, characterizations, environmental assessments or studies or any report or other description of any investigations, removal actions, remedial activities, or any other work conducted by your Company or by any other party on your Company's behalf relating to industrial wastes released at or from any Property and/or the Site. If any copies of the records requested in this question are available electronically, kindly submit your answer to this question on a disk:*

See Bartlett's Response to Question 8. Additionally, as stated above, the Property is the subject of the Consent Order with DEC, which requires that Bartlett investigate and remediate the Property. Accordingly, Bartlett has undertaken

substantial site investigation and is working with DEC to develop appropriate remedial alternatives. This submittal includes electronic copies of the various investigation work plans and reports completed and submitted to DEC to date, and an Index listing those documents for EPA's reference.

11. This information was derived from a number of documents submitted with this response package. The accompanying Index identifies which documents contain information used in the response to this question. *Provide copies of all insurance policies held and indemnification agreements entered into by the Company which may potentially indemnify the Company against any liability which it may be found to have under CERCLA for releases and threatened releases of hazardous substances at and from the Property. In response to this request, please provide not only those insurance policies and agreements which currently are in effect, but also those that were in effect during any portion of the time the Company conducted operations at, or held a property interest. Your response should also identify the specific Property related to each policy and/or agreement:*

Bartlett is self-insured and holds no insurance policies and is not a party to any indemnification agreements which may potentially indemnify Bartlett against any liability it may be found to have under CERCLA.

This information was provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

12. *State the names, telephone numbers and present or last known addresses of all individuals whom you have reason to believe may have knowledge, information or documents regarding the use, storage, generation, disposal of or handling of industrial wastes at the Site, the transportation of such materials to the Site, or the identity of any companies whose material was treated or disposed of at the Site:*

No industrial waste was treated at the Property. To Bartlett's knowledge, no industrial wastes were disposed of at the Property. Accordingly, Bartlett has no contact information for individuals with knowledge of those practices. Bartlett's current employees, including David T. McMaster, Vice President of Division Two, and Justin Walker, manager of Bartlett's Union Avenue operation, may have information on current pesticide handling methods and related issues, and they may be reached at the Property at 345 Union Avenue, Westbury, NY, by mail at P.O. Box 889, Westbury, NY 11590-0889, or by phone at 516-334-0648.

This submission reflects the knowledge of other Bartlett employees, as well as the consultant that has had primary responsibility for investigating the Property. Accordingly, there are no other individuals Bartlett can identify at this time.

This information was provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

13. *If you have information or documents which may help EPA identify other companies that conducted operations, owned property, or were responsible for the handling, use, storage, treatment, or disposal of industrial wastes that potentially contributed to chlorinated solvent contamination of the Site, please provide that information and those documents, and identify the source(s) of your information:*

The Technical Memorandum provides information about properties near Bartlett's properties which, based on publicly available information, are identified as having either spilled or discharged industrial wastes that potentially contributed to the chlorinated solvent contamination of the Site, or that, based on their operations, may use or store chlorinated solvents. Beyond this information, however, Bartlett has no such information at this time.

Portions of this information were provided by Frank Williams, PG, Brown & Caldwell, 234 Hudson Avenue Albany, New York 12210, the primary author of the reports and Technical Memorandum submitted with this response package. Portions of this information were provided by David Marren, Esq., Vice President of Safety and Regulatory Affairs, The F.A. Bartlett Tree Expert Company, 13768 Hamilton Rd. Charlotte, NC 28278; (704)-588-1150 O; (704)-588-5152 F.

14. *Please state the name, title and address of each individual who assisted or was consulted in the preparation of your response to this Request for Information. In addition, state whether each such person has personal knowledge of the answers provided.*

David G. Marren, VP of Safety and Regulatory Affairs  
The F.A. Bartlett Tree Expert Company  
13768 Hamilton Rd.  
Charlotte, NC 28278

Mr. Marren has personal knowledge of the information he provided.

Frank Williams, PG  
Brown & Caldwell  
234 Hudson Avenue  
Albany, New York 12210

Mr. Williams has personal knowledge of the investigations and remedial work he performed at the Property. Much of the background information relating to the Property included in the reports and work plans prepared was derived from historical documents, which documents are included as appendices to those reports. Those reports are included in this submission, and listed in the attached Index4842-5655-9637, v. 2



122 South Swan Street  
Albany, NY 12210

T: 518.560.5910  
F: 518.560.5920

# Technical Memorandum

Prepared for: F. A. Bartlett Tree Expert Company; The West Firm, PLLC

Project Title: Bartlett Tree Company Site

Project No.: 139990.860

## Technical Memorandum

Subject: New Cassel/Hicksville Groundwater Contamination Superfund Site

Date: September 26, 2013

To: David Marren, Esq. (Bartlett) and Alita Giuda, Esq. (West Firm)

From: Frank J. Williams

### *Limitations:*

*This document was prepared solely for F. A. Bartlett Tree Expert Company and The West Firm, PLLC (hereinafter Client) in accordance with professional standards at the time the services were performed and in accordance with the contract between Client and Brown and Caldwell dated March 21, 2007. This document is governed by the specific scope of work authorized by Client; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Client and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.*

## Table of Contents

---

List of Figures .....	ii
List of Tables.....	ii
Section 1: Introduction.....	1
1.1 Bartlett Facility.....	1
1.2 Regulatory History of the Facility .....	2
1.3 Surrounding Property Uses .....	3
Section 2: Hydrogeologic Setting.....	5
2.1 Regional Hydrogeology.....	5
2.2 Hydrogeology at the Bartlett Facility.....	5
Section 3: Data Analysis .....	7
3.1 Composition of the Groundwater Contamination.....	7
3.2 VOCs Used at the Bartlett Facility.....	7
3.3 Direction of Groundwater Flow .....	8
Section 4: Conclusion.....	9
References.....	10
Attachment A: EPA Request for Information .....	A-1

## List of Figures

---

Figure 1.	Location of Bartlett Facility
Figure 2.	Bartlett Facility and Adjacent Properties (circa 2007)
Figure 3.	RI Sample Locations
Figure 4.	Hydrogeologic Cross Section
Figure 5.	Hydrostatic Heads in Deep Monitoring Wells
Figure 6.	Water Table Elevation Contours
Figure 7.	VOC Concentrations in Groundwater
Figure 8a.	VOC Concentrations in Soil
Figure 8b.	VOC Concentrations in Soil - Vicinity of Drywell 1

## List of Tables

---

Table 1. Nearby Spills and Waste Generators.....	3
--	---



## Section 1: Introduction

This memorandum presents the hydrogeological and chemical evidence relevant to deciding whether or not F. A. Bartlett Tree Expert Company (Bartlett) contributed to the groundwater contamination associated with the New Cassel/Hicksville Groundwater Contamination Superfund Site (the NCH site). Bartlett operates a tree care facility at 345 Union Avenue in the Village of Westbury (Figure 1). The facility is on a 0.4 acre parcel of land that has been use continuously since the mid 1950s by Bartlett as a base for its tree care operations in the Nassau County, New York area. As described below, limited potential pesticide contamination was identified on this property beginning in 1987, which led to Bartlett voluntarily entering into an Order on Consent with the NYSDEC, and engaging in significant remedial investigation and remediation at the property. Due to this extensive work, Bartlett is very knowledgeable of the site conditions, its underlying hydrogeology, the nature and extent of contamination at its property, as well as potential off-site sources of contamination. This memorandum is intended to provide the reader with the benefit of the information Bartlett has already acquired relative to its property, and that may be useful to EPA's investigation of sources of the primary contaminants of concern at the NCH site.

The materials attached to EPA's Request for Information (Attachment A) describe the NCH site as an area of widespread groundwater contamination in the towns of North Hempstead, Hempstead and Oyster Bay. The site location map provided by the EPA indicates that the area of observed groundwater contamination is approximately one-half mile south of the Bartlett facility and does not include it (Figure 1). According to the EPA, the primary contaminants of concern at the NCH site are tetrachloroethene (PCE), trichloroethene (TCE) and other, unspecified volatile organic compounds (VOCs).

### 1.1 Bartlett Facility

The Bartlett facility is located in an urban, mixed-use neighborhood of commercial and industrial facilities and residences. Figure 2 shows the Bartlett facility and the adjoining properties as they appeared in a 2007 aerial photograph. The facility is bordered on the north by a municipal parking lot; on the east by a construction materials warehouse; on the south by Union Avenue, followed by the Long Island Railroad, a parking lot and cemetery; and on the west by the former Union Oil facility, now a taxi fleet maintenance facility and construction contractor's storage yard.

The Bartlett facility consists of a two-story office/garage structure with paved driveway and parking areas. Prior to their demolition in 2008, the facility also had a garage/storage structure along the east side of the property and an open shed at the north end. Bartlett's service vehicles are parked in the northern portion of the facility and, temporarily, in a locked garage on the ground floor of the office building near the facility entrances on Union Avenue. A mechanics pit once used for routine maintenance of Bartlett's vehicles was located in the garage. The mechanics pit was closed under NYSDEC auspices in 2009. Prior to 2008, small amounts of plant health care materials were stored in a locked, fire proof storage container in the structure on the east side of the facility. The structure had a concrete floor and met or exceeded relevant state and federal regulations for the storage of such materials. After the buildings were demolished, the storage container was relocated to the north side of the office building. Until 2008, sanitary wastes from the office building were discharged to a cesspool (Drywell 3) near the northwest corner of the building. In 2009, after the office building was connected to the municipal sanitary sewer system, Drywell 3 was closed under DEC auspices (Brown and Caldwell Associates, March 2010, submitted herewith as Index No. 18). Drywell 1 was located south of the former open shed. It was constructed of brick, probably before Bartlett's occupancy, and its intended purpose remains unknown. As discussed below, Bartlett removed Drywell 1 in 2012 as an

Interim Remedial Measure (IRM) conducted under NYSDEC auspices (Brown and Caldwell Associates, April 2013, submitted herewith as Index No. 27).

## 1.2 Regulatory History of the Facility

On May 5, 1987, Bartlett investigated a report that an abandoned “cistern” at the Bartlett facility (Drywell 1) held empty pesticide containers. Upon investigation, Bartlett found that Drywell 1 was partially filled with water, which Bartlett sampled. Bartlett also recovered two Sevin containers (empty, crushed 5-gallon metal pails). After the inspection, Drywell 1 was backfilled with clean sand out of concern that it could collapse under driveway traffic. The sample of the standing water was analyzed and found to contain pesticides. Bartlett reported its findings to the Nassau County Department of Health (NCDH) in 1990 in response to the County’s inspection of the facility at about that time. In April 1990, an anonymous caller to the NYSDEC claimed that pesticides and herbicides were periodically placed into Drywell 1 prior to abandonment of the drywell in 1983.

In 1996-1998, the DEC conducted a Preliminary Site Assessment (PSA) to determine if a potential source of soil and/or groundwater contamination existed at the Bartlett facility (Dvirka and Bartilucci, 1998, submitted herewith as Index nos. 7, 8 and 9). Soil and groundwater samples<sup>1</sup> were collected by direct push (GeoProbe®) methods and analyzed for VOCs, SVOCs, pesticides, organochlorine pesticides, PCBs, cyanide and metals. Pesticides and VOCs (primarily benzene, ethylbenzene, and xylene) were detected in soil samples from beneath Drywell 1. Groundwater samples from beneath Drywell 1 contained pesticides and the VOCs ethylbenzene and total xylenes. PCE, TCE and cis and trans isomers of 1,2-dichloroethene (DCE) were also detected in groundwater. TCE and DCE were found in the deeper groundwater samples (62’ bgs) obtained at both upgradient and downgradient locations, but not in the sample from directly beneath Drywell 1. PCE was detected in the shallower upgradient sample and in the deeper upgradient sample. The NYSDEC concluded that the PSA findings suggest an off-site source for DCE, TCE and PCE.

In 2000, on the basis of the PSA results, the NYSDEC added the Bartlett facility to its Registry of Inactive Hazardous Waste Disposal Sites, stating that the following listed hazardous wastes had been confirmed: Dieldrin, Endrin, alpha-Chlordane, DDD, DDT, and gamma-BHC (Lindane). No VOCs were cited as a basis for listing the Bartlett facility. The NYSDEC stated in its Inactive Hazardous Waste Disposal Report that several chlorinated solvents (PCE, TCE, and DCE) were found both upgradient and downgradient of the Bartlett facility, suggesting an off-site source.

In 2007 Bartlett entered into an Order on Consent and Administrative Settlement with the NYSDEC. An RI/FS Work Plan (Brown and Caldwell Associates, March 2008, Index No. 11 submitted herewith) was developed and approved by the NYSDEC, and a Remedial Investigation (RI) was conducted pursuant to the approved plan. Two interim RI data summary reports (Index Nos. 16 and 19 submitted herewith) were submitted to the NYSDEC as the RI progressed, and the draft RI Report was submitted to NYSDEC in August 2013 (Brown and Caldwell Associates, August 2013, Index No. 28 submitted herewith). In conjunction with the RI, Bartlett remediated Drywell 3 and the mechanics pit, and implemented an IRM to remediate Drywell 1. Figure 3 shows the facility and the RI sample locations. The findings pertinent to VOCs are discussed in Sections 2 and 3, and the relevant work plans and construction reports are included with this submittal as Index Nos. 15, 18, 22, 23, 25, 27.

---

<sup>1</sup> Groundwater samples collected by the direct-push methods used in the 1998 PSA are usually turbid, which can cause analytical results to be biased high. Unless the samples are field-filtered to reduce turbidity prior to analysis, the results should not be considered representative of actual groundwater concentrations. The PSA samples were not field-filtered.

### 1.3 Surrounding Property Uses

Numerous commercial and industrial facilities are located near the Bartlett facility. Publicly available environmental records (Environmental Data Resources, Inc.; May 2007) indicate some of these facilities generated or spilled waste materials containing VOCs or other hazardous substances. Table 1 lists surrounding facilities in counterclockwise order.

Table 1. Nearby Spills and Waste Generators				
Name	Address	Distance from Bartlett	Wastes Generated or Released	Remarks
Rodale Electronics Corporation	475 Union Avenue	Approximately 1300 feet east-northeast of Bartlett.	Generator of hazardous wastes including spent halogenated solvents (F001) and ignitable (D001).	
General Semiconductor, Inc. and/or Vishay General Semiconductor, LLC	172 Spruce Street	Approximately 1000 feet northeast of Bartlett	Generator of characteristic hazardous wastes including corrosive (D002) and mercury toxicity (D009).	The facility has been registered as a RCRA Large Quantity Generator of hazardous waste, and has been subject to RCRA Corrective Action. The facility is listed as having received numerous notices of violation.
Frank's Auto Body	340 Maple Avenue	Approximately 600 feet north of Bartlett.	Generator of spent non-halogenated solvents (F005).	
Harry's Automotive	200 Post Avenue	Approximately 600 feet northwest of Bartlett.	Generator of spent non-halogenated solvents (F005).	
Union Oil	333 Union Avenue	Adjoins Bartlett on the west.	Gasoline and #2 fuel oil. Failure of underground tank tests.	Bartlett briefly rented parking space on this property, however, the wastes released at this site pre-dated Bartlett's rental, and Bartlett observed no activities related to underground tanks, or their remediation, during its tenancy.
Various dry cleaning establishments	123 Post Avenue	Approximately 500 feet west of Bartlett.	Generator of listed hazardous wastes including spent halogenated solvents (F001, F002).	The 123 Post Avenue Site is a Class 2 State Superfund site with confirmed releases to groundwater of PCE and its breakdown products TCE and DCE.
Len-Tone Auto, Inc.	401 Railroad Avenue	Approximately 200 feet southeast of Bartlett.	Generator of spent non-halogenated solvents (F003, F005).	
Stewart Taxi	371 Union Avenue	Approximately 200 feet east of Bartlett.	Waste oil. Caller stated unknown material/petroleum, etc. was suspected to have been dumped in a hole in the floor.	It is not uncommon for waste oil to be contaminated with VOCs and other hazardous substances.
Senator Printing Corporation	134 Linden Avenue	Approximately 400 feet east of Bartlett.	Unknown petroleum. Caller stated photochemicals were dumped into sink drains, alcohol based printing solutions were dumped into drywells.	

Additionally, according to a 1968 Sanborn fire insurance map (Environmental Data Resources, Inc. May 2007), the building located at 355-357 Scally Place, Westbury, NY was used for electronics manufacturing, a type of industry that has been associated with the use of chlorinated solvents. The same Sanborn map

indicates the adjacent building at 351 Scally Place was used as an optical goods warehouse. These two buildings are located approximately 50-100 feet from the northeast corner of the Bartlett property in an area that is partially upgradient from Bartlett (see Section 2). As late as 2009, 355 Scally Place was occupied by Westbury Electronic Service, according to a website maintained by the company ([www.westburyelectronic.com/dett\\_news.php?idn=6](http://www.westburyelectronic.com/dett_news.php?idn=6)). Records maintained by the United States Patent and Trademark Office (<http://tess2.uspto.gov>) indicate a trademark was registered on October 19, 1982 to Fil-Coil Company, Inc. at 351 Scally Place, Westbury, NY 11590. The USPTO entry for Goods and Services is "Radio Frequency Interference Filters and Capacitors." A web-site maintained by Custom Power Systems (<http://www.custompowersystem.com>) states that its affiliate, Fil-Coil FC, Inc., is a leading manufacturer of electromagnetic filters for power lines, data communications, radio frequency interference/electro-magnetic interference, and MRI (magnetic resonance imaging) rooms.



## Section 2: Hydrogeologic Setting

This section presents a description of regional and local hydrogeology as it relates to understanding groundwater contamination in the vicinity of the Bartlett facility.

### 2.1 Regional Hydrogeology

Three main water bearing units are found on Long Island – the upper glacial aquifer of Pleistocene age and the underlying Magothy and Lloyd aquifers of upper Cretaceous age. In the area of the Bartlett facility, the upper glacial aquifer is comprised of glacial outwash consisting of sand and gravel (Busciolano, 2002). The Gardiners Clay and “20 Foot” Clay, which are marine clay deposits of Pleistocene age along the south shore of Long Island, are reportedly absent in the area of the Bartlett facility (Doriski, 1983). In this portion of Long Island the upper glacial aquifer directly overlies the Magothy aquifer, which generally consists of fine to medium grained sand with interbedded lenses of coarse sand and sandy to solid clay. Doriski, 1983 mapped the surface of the Magothy aquifer in the area of the Bartlett facility at an elevation of approximately 50 feet NGVD. A regional groundwater divide separates Long Island’s aquifers into a northern zone where groundwater flows north and discharges to Long Island Sound, and a southern zone where groundwater flows south and discharges to the Atlantic Ocean. The Bartlett facility is south of this divide, and regional groundwater flow is to the south-southwest (Figure 1). The PSA report prepared for NYSDEC (Index Nos. 7, 8, and 9 submitted herewith) stated that regional groundwater flow in the area of the Bartlett facility is approximately south 30° west.

### 2.2 Hydrogeology at the Bartlett Facility

The geologic materials encountered by RI borings are depicted in cross section A-A’ (Figures 3 and 4). Consistent with the aforementioned regional studies, the upper-most geologic materials are glacial outwash deposits of fine to medium sand and fine to medium gravel. A 20-foot thick layer of clayey silt is present at approximately 40 to 60 feet bgs. At monitoring well MW-3, the surface of the clayey silt is deeper (57 feet bgs). Soil borings elsewhere at the facility were not deep enough to confirm the presence of this clayey silt layer, but there is evidence that it is laterally extensive (see below). The deposits encountered below the clayey silt layer are fine to medium sand and fine to medium gravel. Deeper sand and gravel zones contain a number of discrete lenses of silty clay or clayey silt. As shown in Figure 4, the clayey silt layer and its interface with the underlying sand and gravel deposits are at an elevation of approximately 50 feet NGVD, the elevation of the Magothy formation mapped by Doriski. Thus, at least in the immediate vicinity of the Bartlett facility, the Magothy aquifer is separated from the upper glacial aquifer by a relatively impermeable aquitard.

There are two deep monitoring wells screened below the clayey silt layer, MW-1D and MW-2D. Continuous water level measurements recorded by in-well pressure transducers (Figure 5) indicate a persistent, southerly gradient from MW-1D to MW-2D,<sup>2</sup> consistent with regional groundwater flow. The continuous water level data also indicate the Magothy aquifer is locally isolated from the shallow glacial aquifer by the clayey silt layer; a weekly pattern of fluctuation in the deep monitoring wells (apparently caused by regular pumping from the Magothy) is not seen in the shallow wells (MW-1S and MW-2S).

---

<sup>2</sup> Figure 5 shows several brief spikes in the water level recorded in MW-2D during a prolonged rain event on April 25-26, 2010. The spikes are attributed to storm water flooding the flush-mount well vault and entering the well through the PVC riser, which was temporarily open to accommodate the pressure transducer cable.

Shallow groundwater in the immediate vicinity of the Bartlett facility typically flows in a west or west-southwest direction (Figure 6), apparently due to local influences. The pattern on the particular date represented on Figure 6 varies, and may be influenced by sporadic operation of a nearby sump pump, groundwater recovery well, or sewage pump station. Monitoring wells MW-4 and, to a lesser extent, MW-2S are downgradient from Drywell 1. A detailed discussion of groundwater flow is available in the RI Report, which was submitted with herewith as Index Number 28.



## Section 3: Data Analysis

An analysis of the significant body of chemical and hydrogeological data produced during the RI indicates the Bartlett facility is not a contributor to the groundwater contamination associated with the NCH site.

### 3.1 Composition of the Groundwater Contamination

The groundwater at the Bartlett facility is contaminated above groundwater standards by TCE and its principle breakdown product, cis 1,2-DCE (hereinafter cis DCE). In four rounds of groundwater sampling conducted over a four year period, the only VOCs detected at concentrations above 6NYCRR Part 703 Class GA groundwater standards are TCE and cis DCE. With one questionable exception, all such exceedences occurred in the off-site, upgradient deep monitoring well MW-1D (Figure 7). The TCE and cis DCE concentrations at MW-1D have been relatively consistent over time, ranging from 31 ppb to 120 ppb for TCE and from 19 ppb to 48 ppb for cis DCE. On one occasion, there was a slight exceedence of the 5 ppb TCE standard in monitoring well MW-2S, which is located southwest of Drywell 1. Only trace levels of TCE (1J ppb – 2J ppb) were detected in the other samples from that well, indicating the 8 ppb result may be anomalous. Tetrachloroethene (PCE) was detected in groundwater at a number of locations across and upgradient from the Bartlett facility, at concentrations below the Part 703 groundwater standard. The maximum PCE concentration (4 ppb) was detected at two locations, including upgradient/sidegradient well MW-1S and well MW-4, indicating widespread presence unrelated to a source on the Bartlett facility.

### 3.2 VOCs Used at the Bartlett Facility

The VOCs used at the Bartlett facility did not cause the identified groundwater contamination. There is no information indicating Bartlett used or released products containing TCE or cis DCE. This is corroborated by the soil analytical data, which indicate there are no residues of TCE or cis DCE capable of adversely impacting groundwater quality. The highest soil concentrations of TCE and cis DCE are between 2 ppb and 5 ppb, well below the 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) for protection of groundwater (470 ppb for TCE, 250 ppb for cis DCE).

The only VOCs present in soil above the SCOs for protection of groundwater are the non-chlorinated hydrocarbons ethylbenzene, toluene and isomers of xylene, which were detected in samples of soil from beneath Drywell 1 and inside Drywell 3 before these structures were remediated. It is important to note that SCOs only indicate a concentration at which there is a *potential* for soil contamination to leach and act as a long-term source of groundwater contamination; the RI groundwater data indicate no such impacts have occurred. The common laboratory contaminant methylene chloride was detected once above the SCO for protection of groundwater, in a soil sample collected from beneath Drywell 1 before it was remediated. Again, this only indicates a potential to impact groundwater quality; the groundwater data indicate no methylene chloride impacts have occurred.

Bartlett may have used an inconsequential amount of PCE during routine maintenance of its service vehicles. Prior to closure of the mechanics pit, PCE was detected at 21 ppb in a sample of soil taken from the surface of the pit's concrete base. This is not surprising, as PCE is a component of widely used carburetor and brake cleaners. The PCE detected inside the mechanic's pit was not capable of impacting groundwater quality for the following reasons: 1) the concentration (21 ppb) was well below the SCO for protection of groundwater (1,300 ppb); 2) no PCE was detected in the soil directly under the pit's concrete base; and 3) the water table is approximately 30 feet below the mechanic's pit, and leaching of PCE by precipitation would have been prevented by the building. PCE was detected at 700  $\mu\text{g}/\text{m}^3$  and 1,070  $\mu\text{g}/\text{m}^3$  in sub-slab soil vapor samples from beneath the office building in 2008 and 2012 (Brown and Caldwell Associates, May

2012, submitted herewith as Index No. 24). Equilibrium partitioning calculations based on Henry's law indicate the concentrations of PCE in groundwater could produce the concentrations of PCE detected in soil gas. It is also possible that PCE vapors diffusing from the nearby mechanics pit structure migrated under the floor slab to the soil vapor sampling point. In either case, the PCE detected in sub-slab soil vapor does not suggest Bartlett caused PCE contamination of groundwater.

### 3.3 Direction of Groundwater Flow

The direction of groundwater flow relative to hypothetical sources of contamination confirms that the VOCs of concern to EPA's inquiry were not generated by Bartlett. The RI data indicate the TCE and DCE groundwater contamination is originating at an upgradient source, probably located north or northeast of the Bartlett facility. The TCE and DCE have been found consistently above groundwater standards in off-site monitoring well MW-1D only (Figure 7), located north of the Bartlett facility and screened below the clayey silt layer. Regional groundwater flow as well as water level data recorded in MW-1D and MW-2D (Figure 5) confirm MW-1D is upgradient from the Bartlett facility. There are no TCE or DCE residues in the soil near MW-1D that could be causing the groundwater impacts found in this well. The RI data also indicate that relatively low levels of PCE are originating outside the Bartlett facility. Shallow groundwater in the vicinity of MW-1S (also located north of the Bartlett facility) generally flows in a west-southwesterly direction, indicating one or more sources of PCE are north or east of the Bartlett facility.



## Section 4: Conclusion

The RI data indicate that the significant VOC contamination in the vicinity of the Bartlett facility consists of TCE and cis DCE originating at one or more sources outside the Bartlett facility. No other VOCs have been detected in groundwater above the 6 NYCRR Part 703 groundwater standards. PCE has been detected at concentrations below the Part 703 groundwater standard in a number of monitoring wells, including upgradient/side gradient well MW-1S, indicating one or more sources outside the Bartlett facility.

Extensive sampling of soil during the RI found no residues of TCE, cis DCE or PCE on the Bartlett facility that could be impacting groundwater quality. These chlorinated VOCs were detected at shallow depths, at very low concentrations, in the mechanic's pit, test pit number 1, and the stairwell floor drain, with 30 feet separating them from the water table. The soil concentrations were so far below the 6NYCRR Part 375 SCOs for protection of groundwater that there would be no threat to groundwater quality even if they were somehow exposed to potential leaching by precipitation.

Low concentrations of non-chlorinated, petroleum-derived hydrocarbons (toluene, ethylbenzene, xylenes) were detected in soils under Drywell 1 and inside Drywell 3 before Bartlett remediated these structures. Although the SCOs for protection of groundwater would indicate a *potential* for these soils to have adversely impacted groundwater quality under certain conditions, no such impacts actually occurred. This is not surprising considering that the impacted soils were separated from the water table by 15 feet or more. In any case, all soils containing concentrations greater than the SCOs were removed during the Drywell 1 IRM and the closure of Drywell 3.

The NYSDEC concluded that the 1998 PSA suggested an off-site source for DCE, TCE and PCE. The RI data continue to support this conclusion. The RI data demonstrate that the only VOC residues on the Bartlett property that had a potential to impact groundwater quality never actually did, and Bartlett's extensive remedial actions ensure no impacts will occur in the future.



## References

- Brown and Caldwell Associates, March 2008. Remedial Investigation/Feasibility Study Work Plan, Bartlett Tree Company Site, Nassau County, New York, DEC Site Registry No. 130074.
- Brown and Caldwell Associates, March 2010. Closure of Drywell 3 and Mechanic's Pit, Remedial Action Report, Bartlett Tree Company Site, Westbury, New York, DEC Site Registry No. 130074.
- Brown and Caldwell Associates, May 2012. Letter report to NYSDEC re Results of March 2012 Air and Sub-Slab Vapor Sampling Bartlett Tree Company Site, NYSDEC Site Registry No. 1-30-074. May 8, 2012.
- Brown and Caldwell Associates, April 2013. Construction Completion Report, Drywell 1 – IRM Implementation, Bartlett Tree Company Site, DEC Site No. 1-30-074, Village of Westbury, Nassau County, New York.
- Brown and Caldwell Associates, August 2013. Draft Remedial Investigation Report, Bartlett Tree Company Site, DEC Site No. 1-30-074, Village of Westbury, Nassau County, New York.
- Busciolano, R. "Water-Table and Potentiometric-Surface Altitudes of the Upper Glacial, Magothy, and Lloyd Aquifers on Long Island, New York, in March-April 2000, with a Summary of Hydrogeologic Conditions." U.S. Geological Survey. 2002.
- Doriski, T.P. and Wilde-Katz, F. "Geology of the '20-Foot' Clay and Gardiners Clay in Southern Nassau and Southwestern Suffolk Counties, Long Island, New York." U.S. Geological Survey. 1983.
- Dvirka and Bartilucci. "Preliminary Site Assessment, Bartlett Tree Company, Westbury, Nassau County, New York, DEC Registry No. 130074." April 1998.
- Environmental Data Resources, Inc. May 2007. EDR Radius Map with GeoCheck®, Bartlett Tree Company, 345 Union Ave., Westbury, NY 11590, Inquiry Number: 1923678.2s. May 9, 2007.
- USEPA, 2013. Request for Information Letter from Nicoletta Diforte, USEPA, to Robert Bartlett, F.A. Bartlett Tree Expert Company, with attachments. July 31, 2013.



## FIGURES

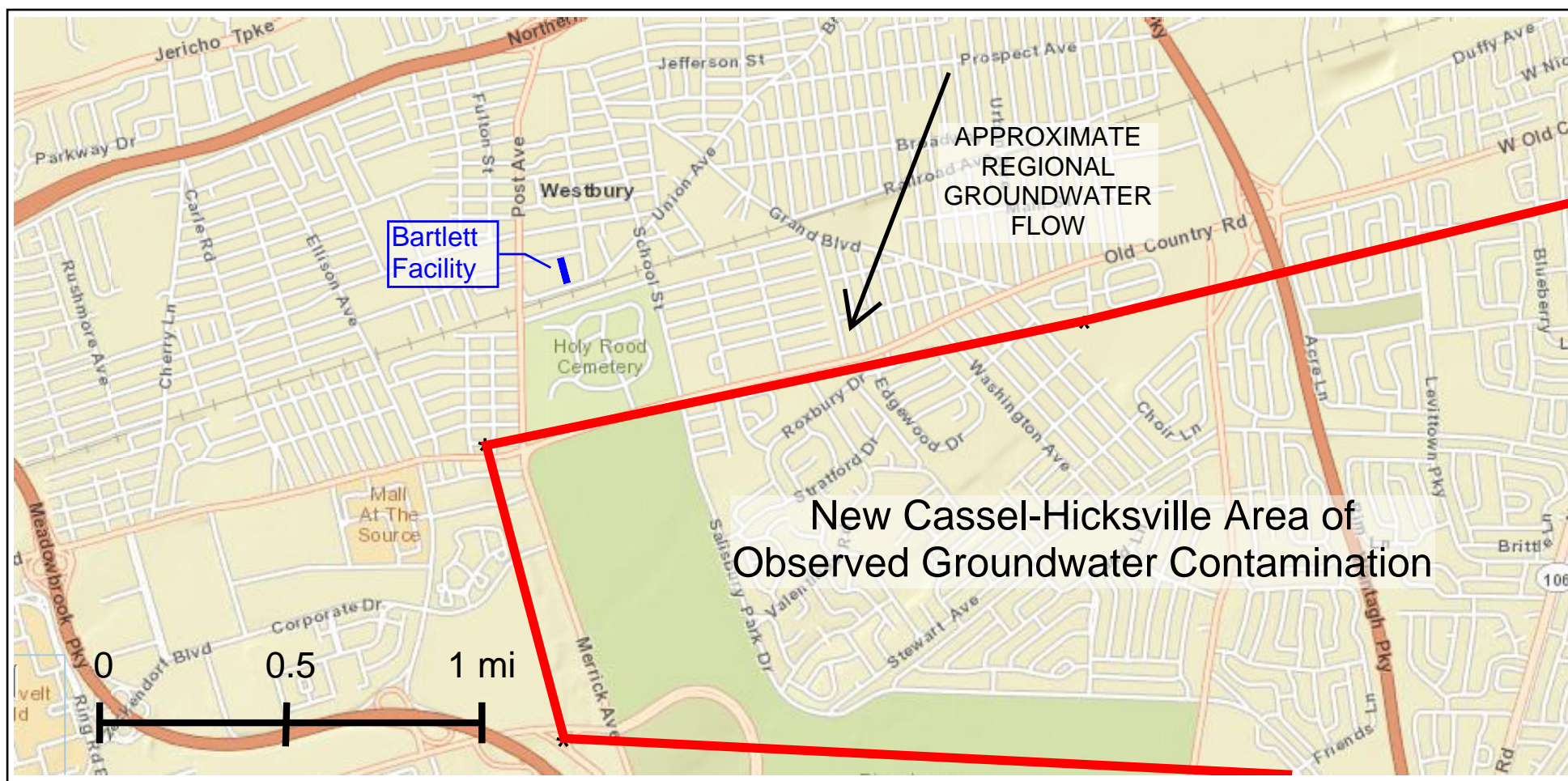
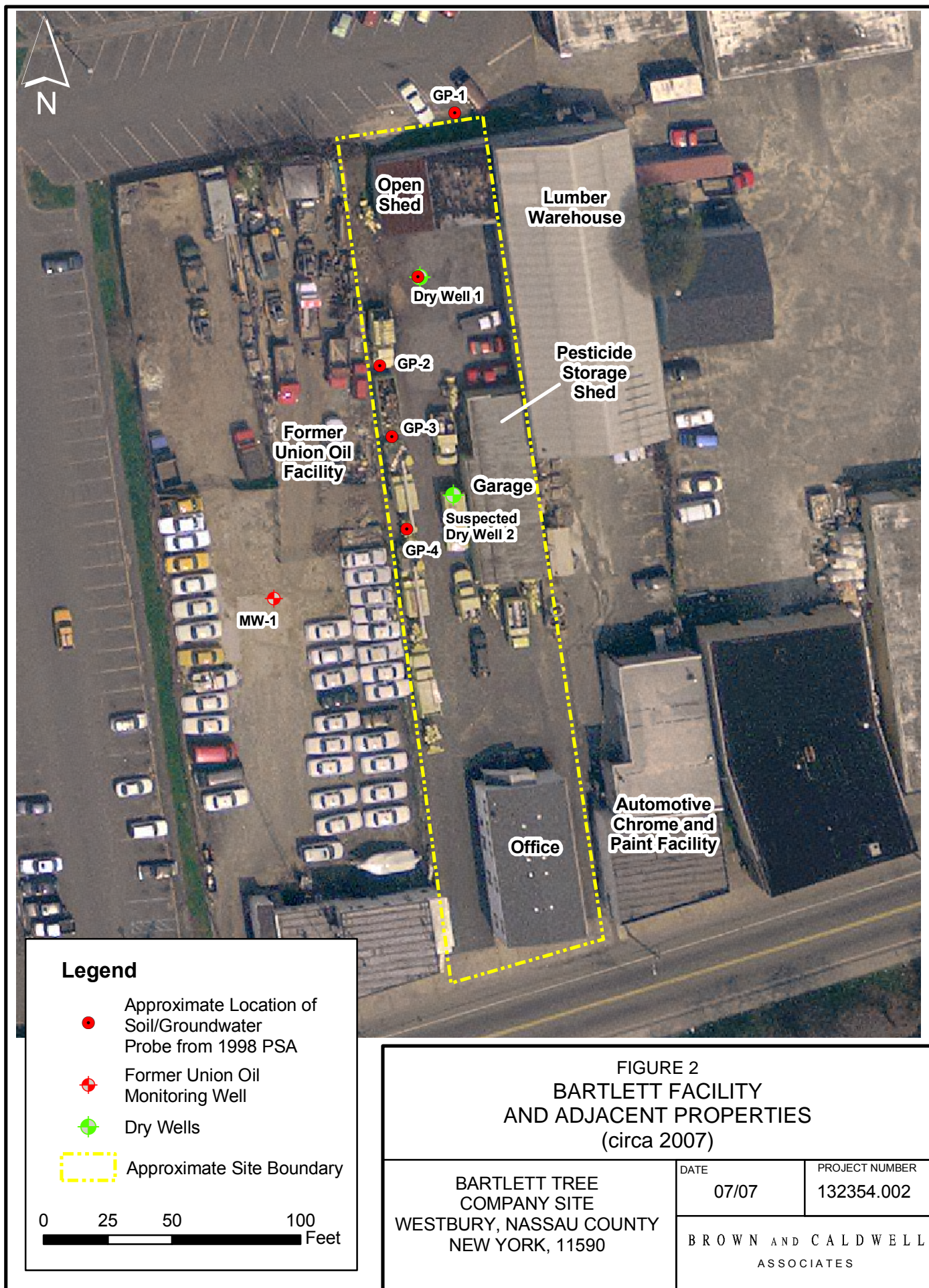
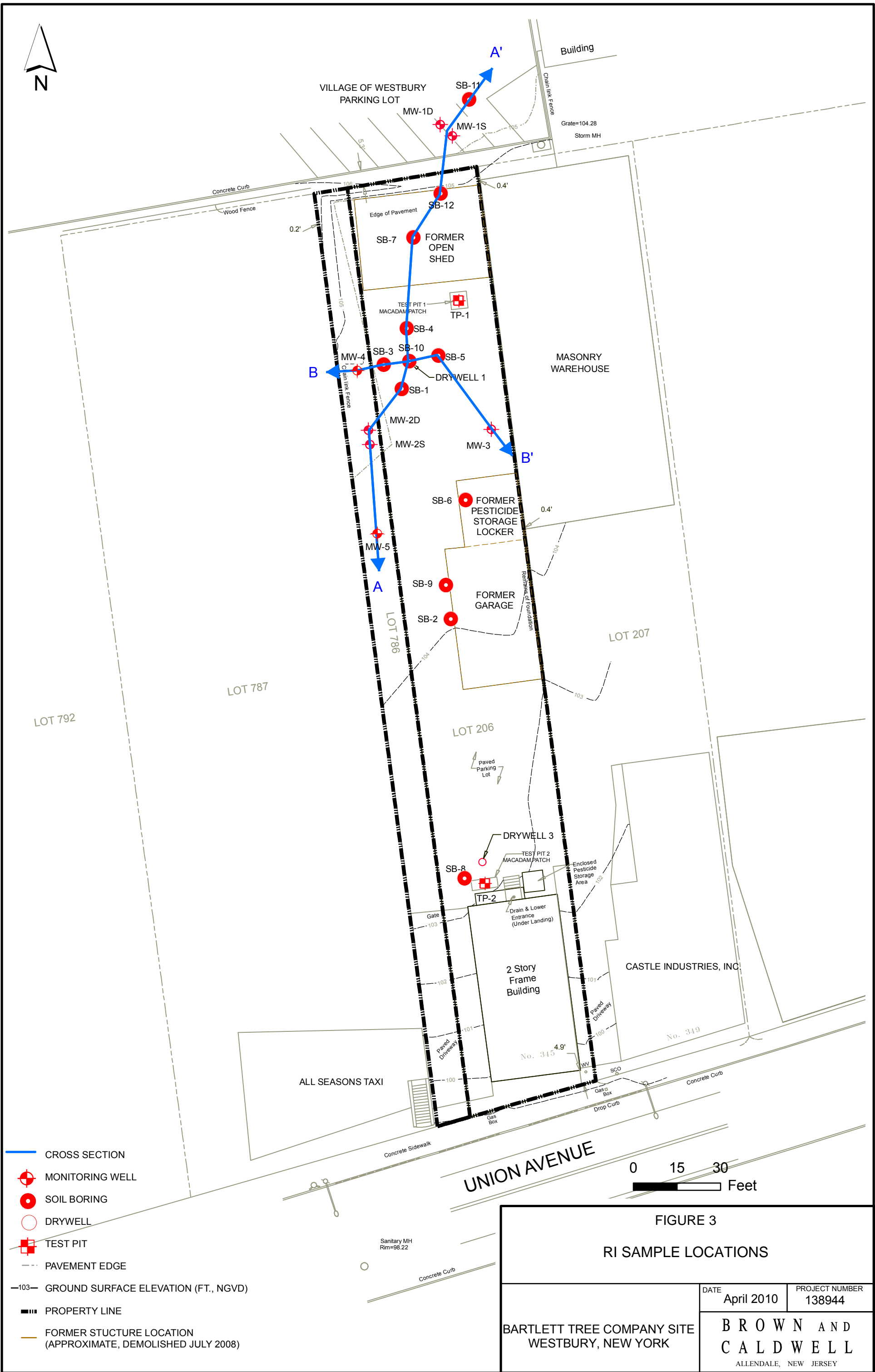
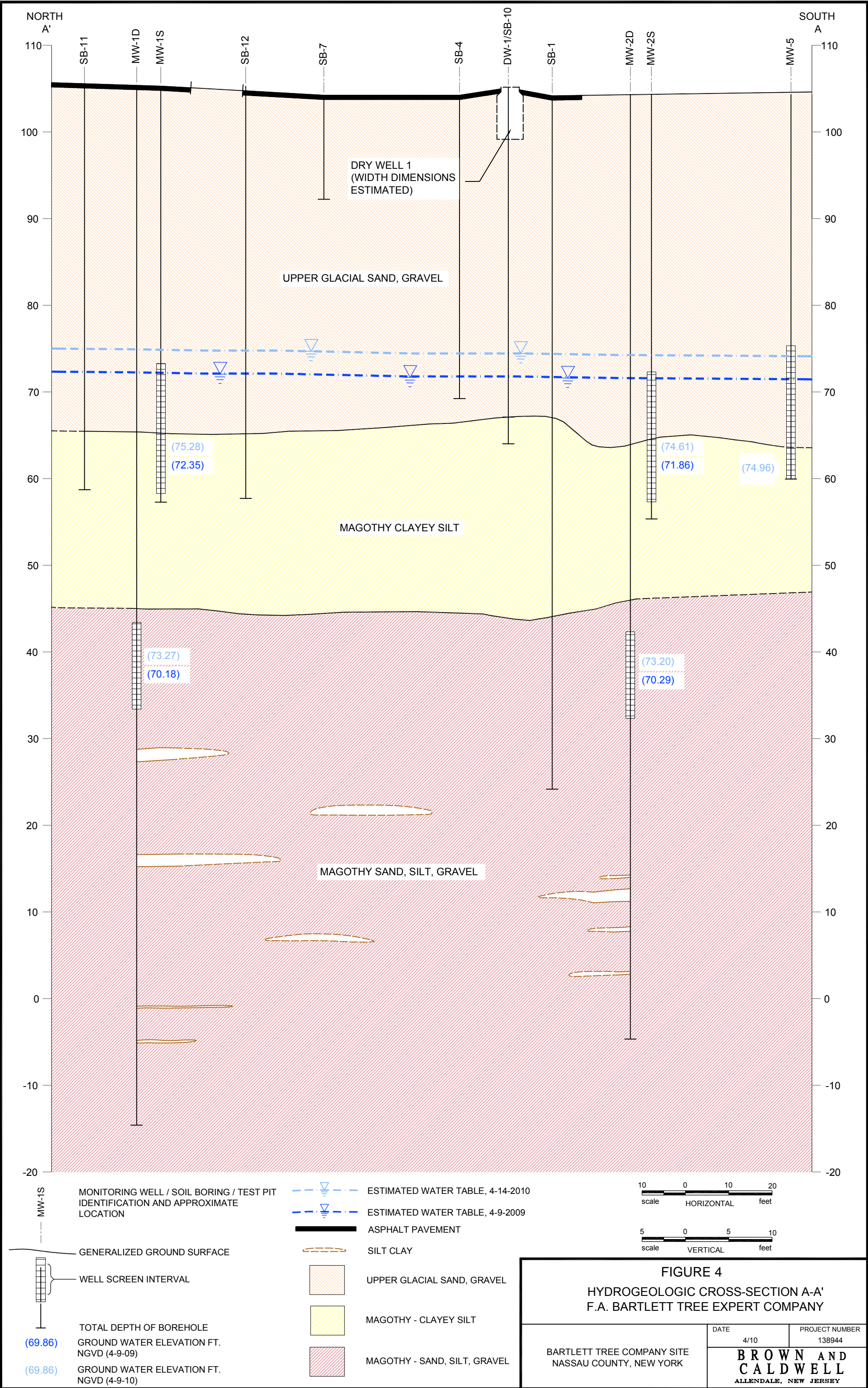


FIGURE 1  
LOCATION OF BARTLETT FACILITY



P:\GIS\Bartlett\_Tree\2010\_Data-Summary\_Report\Site\_Plan\_050610.mxd





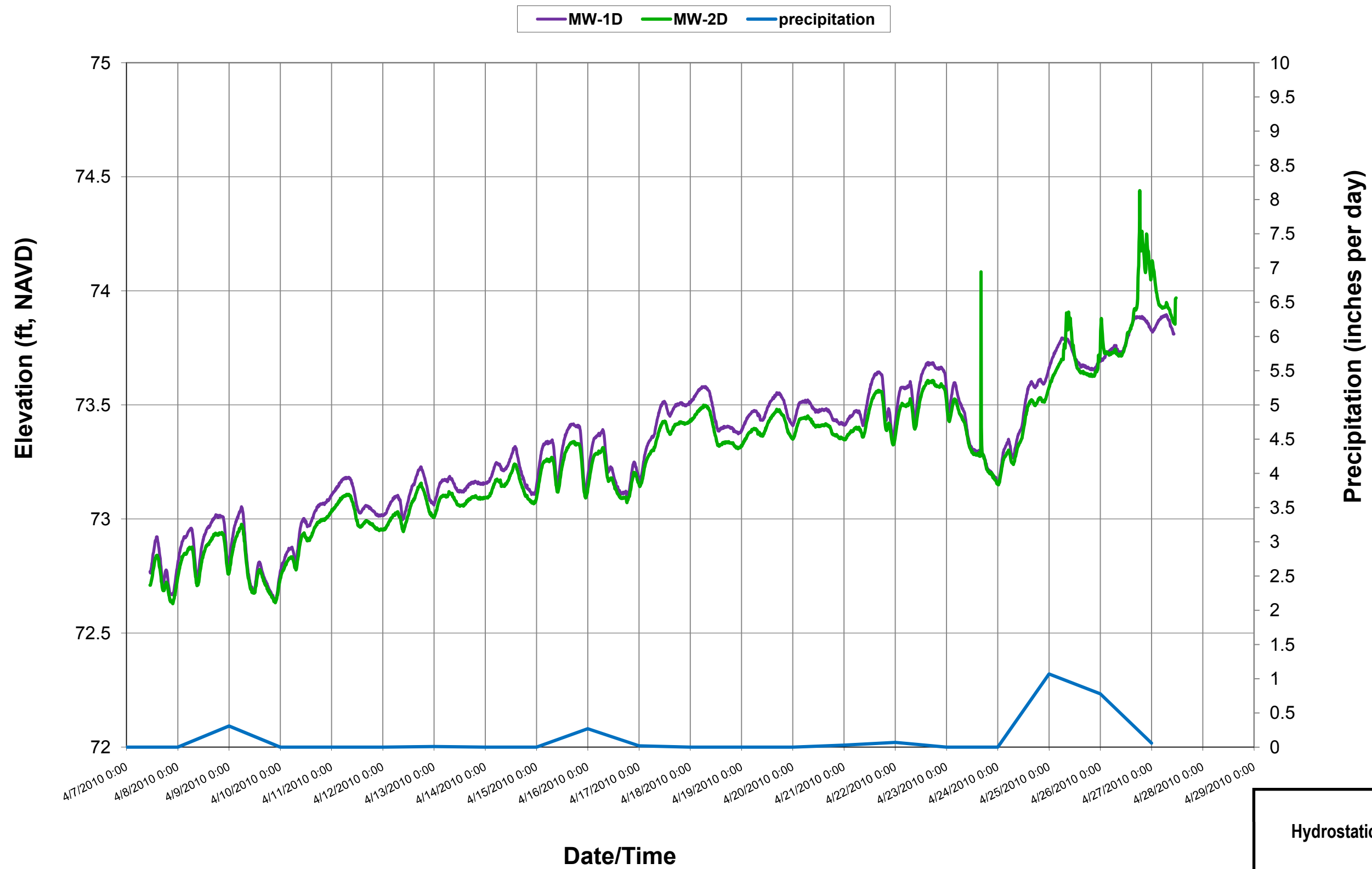
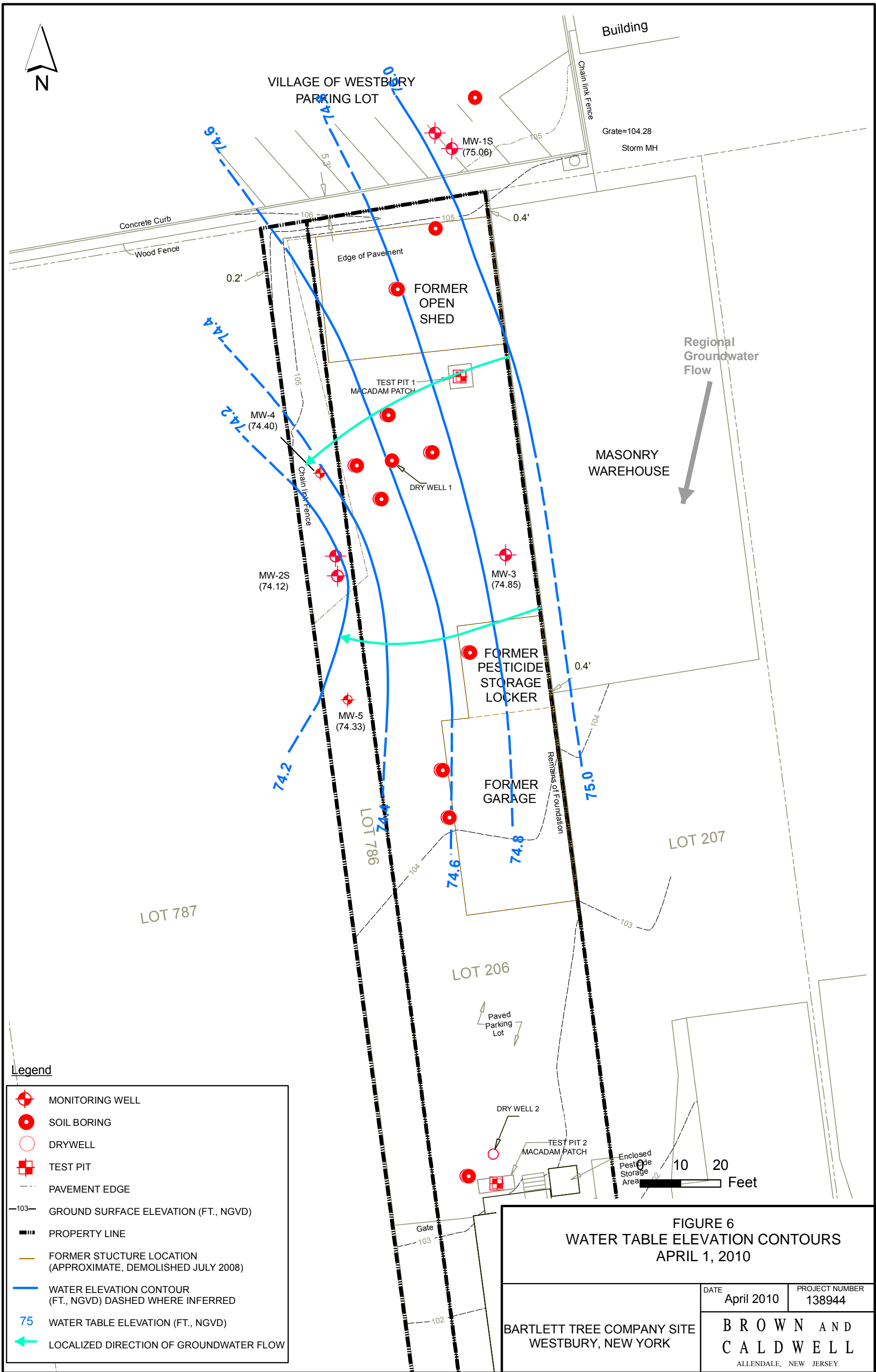
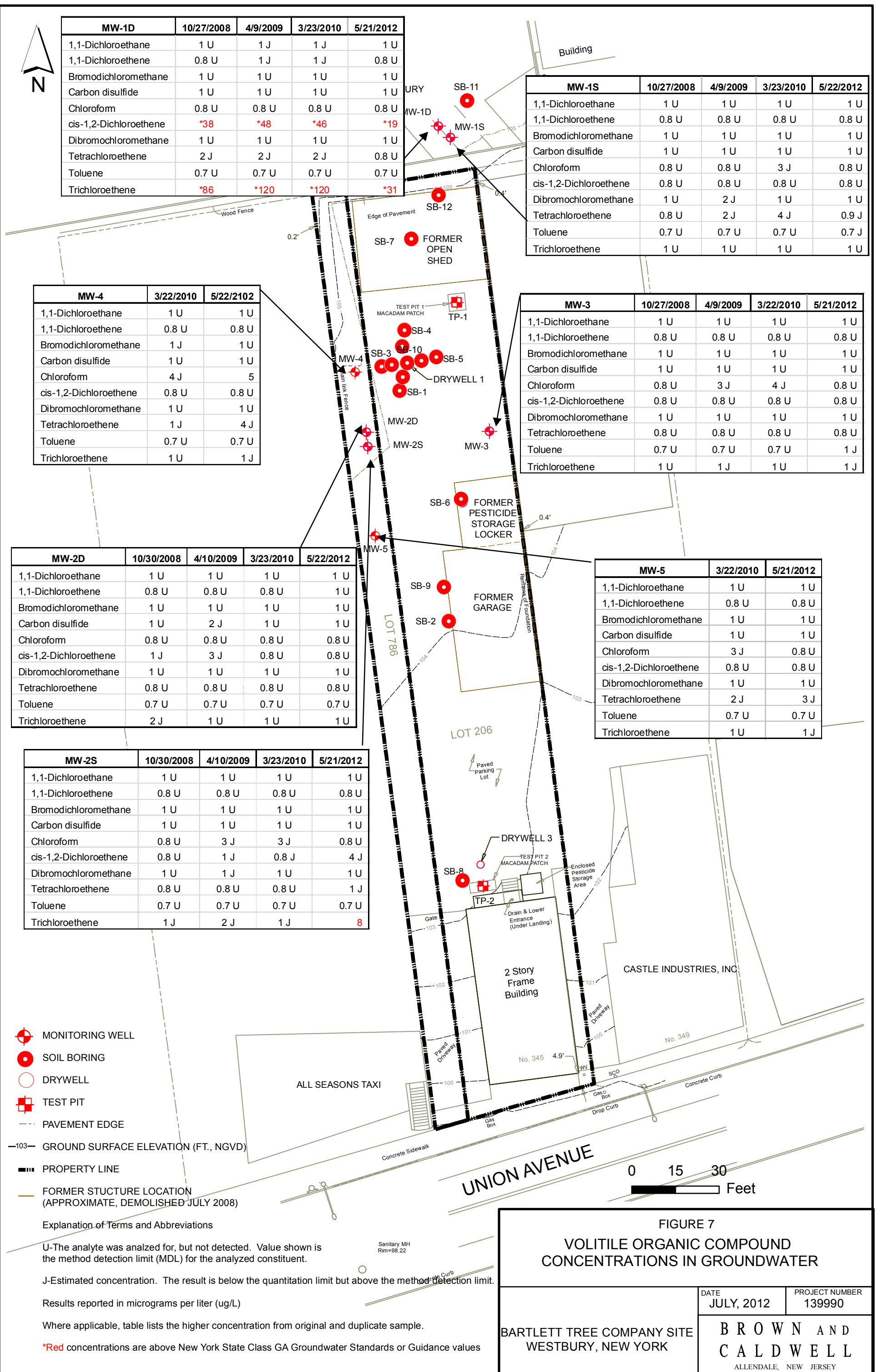


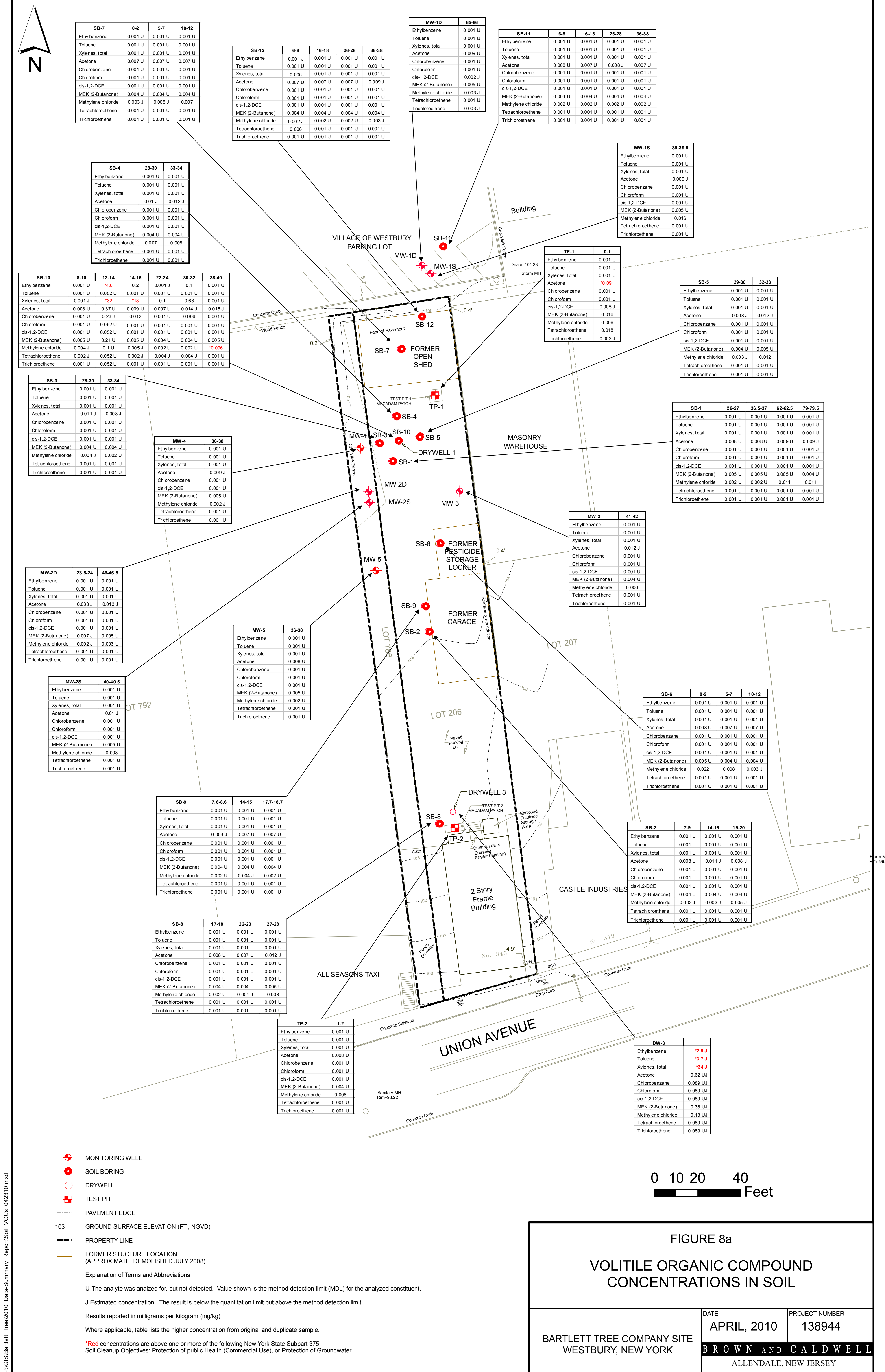
FIGURE 5  
Hydrostatic Head vs Precipitation  
Deep Wells  
Bartlett Tree Experts

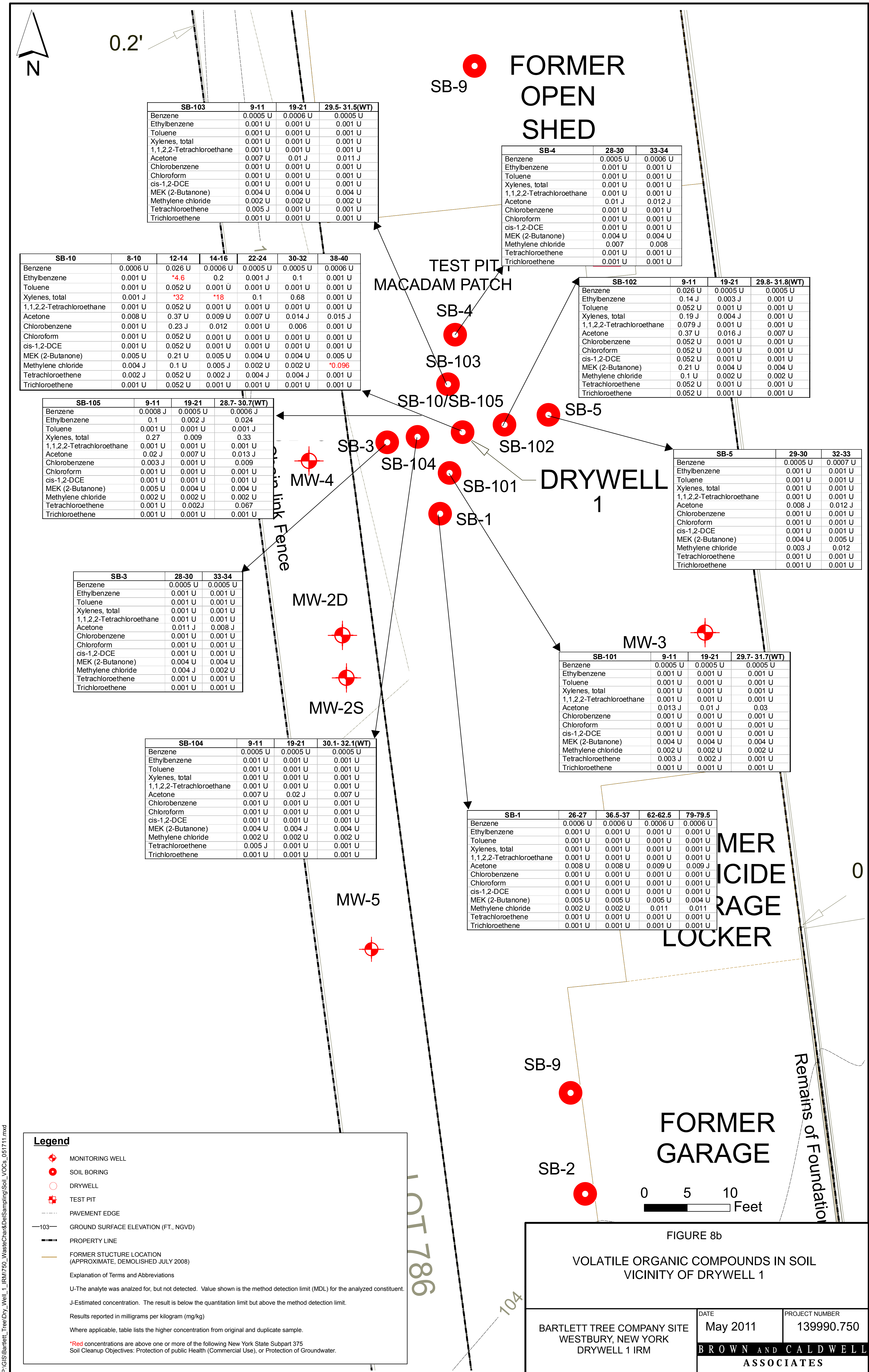
**BROWN AND CALDWELL  
ASSOCIATES**

P:\GIS\Bartlett\_Tree\2010\_Data-Summary\_Report\Figure\_GW\_4\_1\_10.mxd









## Attachment A: EPA Request for Information

---





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2

290 BROADWAY

NEW YORK, NEW YORK 10007-1866

JUL 31 2013

CERTIFIED MAIL --  
RETURN RECEIPT REQUESTED

Robert A. Bartlett, CEO  
The F.A. Bartlett Tree Expert Company  
Greg Daniels, President and Chief Operations Officer  
1290 East Main Street  
Stanford, CT 06902

Re: Request for Information Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9604(e), Related to the New Cassel/Hicksville Ground Water Contamination Superfund Site in the Towns of Hempstead, North Hempstead and Oyster Bay in Nassau County, New York

Dear Sir:

The U.S. Environmental Protection Agency ("EPA") is charged with responding to the release or threat of release of hazardous substances, pollutants, and contaminants into the environment and with enforcement responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9601-9675. EPA has documented the release and threat of release of hazardous substances into the environment at the New Cassel/Hicksville Ground Water Contamination Superfund Site located in the Towns of Hempstead, North Hempstead, and Oyster Bay in Nassau County, New York (the "Site"). A Site Description and a Site Location Map are enclosed. On September 16, 2011, the Site was listed on the "National Priorities List" of hazardous substance releases that has been established pursuant to CERCLA. In response to these releases and the threat of future releases, EPA has spent public funds and EPA anticipates spending additional public funds for the Site.

The Site comprises a widespread area of ground water contamination in the Towns of Hempstead, North Hempstead, and Oyster Bay. The Site is located in a heavily developed area consisting of industrial, commercial, and residential land where a variety of past industrial and commercial activities may have contributed to ground water contamination. Prior to the Site's inclusion on the National Priorities List, an EPA investigation revealed the presence of volatile organic compounds ("VOCs") including, but not limited to, tetrachloroethylene ("PCE") and trichloroethylene ("TCE") above state and federal drinking water standards in influent water in the following public water supply wells: four Town of Hempstead wells (Bowling Green 1 and 2, Roosevelt Field 10 and Levittown 2A), six Hicksville wells (4-2, 5-2, 5-3, 8-1, 8-3 and 9-3) and Westbury Water District Well 11. The aquifers underlying the Site serve as drinking water for the public water systems in the Towns of North Hempstead, Hempstead and Oyster Bay.

## REQUEST FOR INFORMATION

This letter seeks your cooperation in providing information and documents relating to the Site. EPA requires that you provide a complete and truthful response to the enclosed Request for Information within thirty (30) calendar days of your receipt of this letter. Under Section 104(e) of CERCLA, 42 U.S.C. § 9604(e), EPA has broad information-gathering authority which allows EPA to require persons to provide information or documents relating to the materials generated, treated, stored, or disposed of at or transported from a facility, the nature or extent of a release or threatened release of a hazardous substance, pollutant, or contaminant at or from a facility, and the ability of a person to pay for or perform a cleanup. EPA encourages you to give this letter your immediate attention.

While EPA seeks your cooperation in this investigation, your compliance with this Request for Information is required by law. When you have prepared your response to the Request for Information, please sign and have the enclosed "Certification of Answers to Request for Information" notarized, and return the Certification to EPA along with your response. Please note that false, fictitious, or fraudulent statements or representations may subject you to civil or criminal penalties under federal law. In addition, Section 104 of CERCLA, 42 U.S.C. § 9604, authorizes EPA to pursue penalties for failure to comply with Requests for Information.

Some of the information EPA is requesting may be considered by you to be confidential business information. Please be aware that you may not withhold the information on that basis. If you would like EPA to treat all or part of the information confidentially, you must advise EPA of that fact by following the procedures described in the Instructions included in the enclosed information request, including the requirement of supporting your claim of confidentiality.

If you have information about other parties who may have information which may assist EPA in its investigation of the Site or who may be responsible for contamination at the Site, that information should be submitted to EPA within the time period noted above.

Please note that if, after submitting your response, you obtain additional or different information concerning the matters addressed by the information request, it is necessary that you promptly notify EPA. You have a continuing obligation to supplement your response if new or different information should later become known or available to you.

This Request for Information is not subject to the approval requirements of the Paperwork Reduction Act of 1980, 44 U.S.C. §§ 3501-3520.

Your response to the Request for Information should be mailed to Beverly Kolenberg, Assistant Regional Counsel, Office of Regional Counsel, U.S. Environmental Protection Agency, 290 Broadway, 17<sup>th</sup> Floor, New York, New York 10007-1866, with a copy to Jennifer LaPoma, Remedial Project Manager, Emergency and Remedial Response Division, U.S. Environmental Protection Agency, 290 Broadway, 20<sup>th</sup> Floor, New York, New York 10007-1866, or by email to Ms. LaPoma at [lapoma.jennifer@epa.gov](mailto:lapoma.jennifer@epa.gov).

If you have any questions regarding the Request for Information, or would like to discuss this

matter with EPA, you may call Ms. Kolenberg at (212) 637-3167, or send her an email at [kolenberg.beverly@epa.gov](mailto:kolenberg.beverly@epa.gov). We appreciate and look forward to your prompt response to this information request.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Nicoletta Diforte". The signature is fluid and cursive, with the first name being more prominent.

Nicoletta Diforte  
Senior Enforcement Policy Advisor  
Emergency and Remedial Response Division

Enclosures



# **New Cassel and Hicksville**

**New York**

EPA ID#: NY0001095363

## **EPA REGION 2**

**Congressional District(s): 05**

Nassau

Southern end of Iris Place

NPL LISTING HISTORY

Proposed Date: 3/10/2011

Final Date: 9/16/2011

## **Site Description**

EPA listed the New Cassel/Hicksville Ground Water Contamination Site (Site) on the National Priorities List (NPL) of sites eligible for long-term remedial action financed under the Comprehensive Environmental Response, Compensation, and Liability Act, more commonly known as Superfund, on September 16, 2011. The Site is considered to be an area of widespread groundwater contamination within the Towns of North Hempstead, Hempstead and Oyster Bay in Nassau County, New York.

In 2010, EPA collected groundwater samples from raw (pre-treated) water from multiple public supply wells (PSWs) in central Nassau County and analyzed the raw water samples to determine whether volatile organic compounds (VOCs) were present above the Maximum Contaminant Level (MCL). VOCs are contaminants that evaporate easily into the air and dissolve in water. The MCL is a federal standard for drinking water quality that is a legal threshold limit on the amount of a substance that is allowed in public water systems under the Safe Drinking Water Act. EPA's 2010 analytical results determined that there were VOCs above the MCL in the raw water in four Town of Hempstead wells (Bowling Green 1 and 2, Roosevelt Field 10, and Levittown 2A), six Hicksville wells (4-2, 5-2, 5-3, 8-1, 8-3, and 9-3) and Westbury Water District Well 11.

## **Threat and Contaminants**

The primary contaminants of concern for the Site are tetrachloroethylene (PCE), trichloroethylene (TCE) and other VOCs. VOCs are often used as ingredients in paints, solvents, aerosol sprays, cleaners, disinfectants, automotive products and dry cleaning fluids. While no individual sources were identified in EPA's March 2011 Hazard Ranking System listing package for inclusion on the NPL, it is believed that past industrial and commercial activities in the area may have contributed the ground water contamination at the Site.

To date, the New York State Department of Environmental Contamination (NYSDEC) has evaluated 17 individual sites within the New Cassel Industrial Area (NCIA), located in the Town of North Hempstead, which are listed on the Registry of Inactive Hazardous Waste Sites in New York State. Responsible parties for these NCIA sites have implemented remedial actions associated with VOC contamination in soils and on-site groundwater. These sites remain under NYSDEC's oversight.

Within the Town of Hempstead, two public supply wells, Bowling Green Well 1 and 2, located approximately 1,500 feet downgradient of the NCIA were found to have TCE and PCE in raw water above the MCL. Raw groundwater pulled from these wells is treated prior to distribution to a population of more than 8,000 people.

During EPA's 2010 pre-NPL sampling, a public supply well field in Hicksville, which is in the Town of Oyster Bay, was found to have exceedances of PCE and TCE above the MCL in the raw ground water. Water from the Hicksville PSWs is treated prior to distribution to a population of more than 24,000 people.

Concentrations of VOCs above the MCL were also found in Hicksville Well 9-3, Hicksville Well 8-3, Hicksville Well 8-1, Hicksville Well 4-2, Hempstead-Levittown Well 2A, Hempstead-Roosevelt Field Well 10, and Westbury Well 11. The PSWs are tested regularly for water quality prior to distribution to the public and continues to meet federal and state water quality standards.

## **Cleanup Approach**

EPA will be addressing the Site in discrete phases or components known as operable units or OUs. An operable unit

represents a portion of the Site remedy that for technical or administrative purposes can be addressed separately to eliminate or mitigate a release, threat of release or exposure pathway resulting from Site contamination. EPA anticipates that there will be multiple OUs for the Site, and subsequent Proposed Plans and Records of Decision (RODs) will address groundwater contamination at other OUs at the Site.

The first operable unit at the Site, OU1, addresses a portion of the contaminated groundwater downgradient of the NCIA. In the summer of 2013, EPA expects to release a proposed plan, which discusses the remedial alternatives considered and identifies EPA's proposed remedial alternative with the rationale for EPA's preference to address OU1.

EPA will subsequently conduct remedial investigations to determine the nature and extent of contamination in other operable units. Subsequent operable units will include, but may not be limited to, the areas downgradient of OU1, the Sylvania and the General Instruments sites in Hicksville, as well as areas impacting Hicksville PSWs 4-2, 8-1, 8-3, 0-3 and Hempstead-Levittown 2A.

## **Cleanup Progress**

The New Cassel/Hicksville Ground Water Contamination Site was added to the National Priorities List on September 16, 2011.

OU1: In the summer of 2013, EPA will be issuing a proposed plan, which identifies the remedial alternatives considered and EPA's proposed remedial alternative with the rationale for EPA's preference. Once the proposed plan is released, a 30-day public comment period will begin. EPA will also hold a public meeting to answer questions and allow community members to comment on the proposed remedial alternatives for the Site's OU1. After the close of the 30-day comment period and consideration of comments, EPA will issue a Record of Decision for OU1 which determines the remedial action to be performed.

## **Site Repositories**

U.S. Environmental Protection Agency, Region 2, Superfund Records Center 290 Broadway, 18th Floor, New York, NY 10007-1866

Contact: Jennifer LaPoma, EPA Remedial Project Manager at 212-637-4328 or [LaPoma.Jennifer@epa.gov](mailto:LaPoma.Jennifer@epa.gov) or Cecilia Echols, EPA Community Involvement Coordinator at 212-637-3678 or [Echols.Cecilia@epa.gov](mailto:Echols.Cecilia@epa.gov)



**SOURCES:**

- National Geographic TOPOI U.S. Geologic Survey (USGS), 7-5 Minute Series (Topographic) Quadrangles: Amityville, NY 1992; Freeport, NY 1994; Hicksville, NY 1992; and Huntington, NY 1992.
- Weston Solutions, Inc. Region 5 Start-3, Site Logbooks 996-4E-AHSW (New Cassel Industrial Area) and 1144-4E-AHSX (Hicksville Contaminated Groundwater Area), August 2010.

**PROJECT:**  
 New Cassel/Hicksville GW Contamination

**CLIENT NAME:**  
 EPA

**TITLE:**

**Figure 1 - Site Location Map**  
 New Cassel/Hicksville GW Contamination  
 Towns of Hempstead and Oyster Bay  
 Nassau County, NY

**WESTON**  
 SOLUTIONS

**DATE:**  
 January 2011

**FIGURE #:**  
 1



New Cassel/Hicksville Ground Water Contamination Superfund Site  
Located in Towns of Hempstead, North Hempstead and Oyster Bay, Nassau County, New York

INSTRUCTIONS FOR RESPONDING TO REQUEST FOR INFORMATION

A. Directions

1. A complete and separate response should be given for each question.
2. Identify each answer with the number of the question to which it is addressed.
3. For each document produced in response to this Request for Information, indicate on the document, or in some other reasonable manner, the question to which it applies.
4. In preparing your response to each question, consult with all present and former employees and agents of your company whom you have reason to believe may be familiar with the matter to which the question pertains.
5. In answering each question, identify each individual and any other source of information (including documents) that was consulted in the preparation of the response to the question.
6. If you are unable to give a detailed and complete answer, or to provide any of the information or documents requested, indicate the reason for your inability to do so.
7. If you have reason to believe that an individual other than one employed by your company may be able to provide additional details or documentation in response to any question, state that person's name, last known address, phone number and the reasons for your belief.
8. If a document is requested but not available, state the reason for its unavailability. To the best of your ability, identify the document by author, date, subject matter, number of pages, and all recipients of the document with their addresses.
9. If anything is omitted from a document produced in response to this Request for Information, state the reason for, and the subject matter of, the omission.
10. If you cannot provide a precise answer to a question, please approximate but, in any such instance, state the reason for your inability to be more specific.
11. Confidential Information. The information requested herein must be provided even though you may contend that it includes confidential business information or trade secrets. You may assert a confidentiality claim covering part or all of the information requested, pursuant to Sections 104(e)(7)(E) and (F) of CERCLA, 42 U.S.C. §§ 9604(e)(7)(E) and (F), and 40 C.F.R. § 2.203(b).

If you make a claim of confidentiality for any of the information you submit to EPA, you must prove that claim. For each document or response you claim to be confidential, you must separately address the following points:

- a. the portions of the information which are alleged to be entitled to confidential treatment;
- b. the period of time for which confidential treatment is desired (e.g., until a certain date, until the occurrence of a specific event, or permanently);
- c. measures taken by you to guard against the undesired disclosure of the information to others;
- d. the extent to which the information has been disclosed to others, and the precautions taken in connection therewith;
- e. pertinent confidentiality determinations, if any, by EPA or other federal agencies, and a copy of any such determinations or reference to them, if available; and
- f. whether you assert that disclosure of the information would be likely to result in substantial harmful effects on your business' competitive position, and if so, what those harmful effects would be; why they should be viewed as substantial, and an explanation of the causal relationship between disclosure and such harmful effects.

To make a confidentiality claim, please stamp, or type, "Confidential" on all confidential responses and any related confidential documents. Confidential portions of otherwise non-confidential documents should be clearly identified. Please submit your response so that all non-confidential information, including any redacted versions of documents, are in one envelope and all materials for which you desire confidential treatment are in another envelope.

All confidentiality claims are subject to EPA verification. It is important that you satisfactorily show that you have taken reasonable measures to protect the confidentiality of the information, that you intend to continue to do so, and that the information is not and has not been obtainable by legitimate means without your consent. Information covered by such a claim will be disclosed by EPA only to the extent permitted by Section 104(e) of CERCLA and 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA, then it may be made available to the public by EPA without further notice to you.

## B. Definitions

1. The terms "and" as well as "or" shall be construed either disjunctively or conjunctively as necessary to bring within the scope of these questions any information which might otherwise be construed to be outside of their scope.
2. The term "arrangement" means every separate contract or other agreement between two or more persons.
3. As used herein, and unless otherwise stated, the term "Company" refers to the addressee of this letter or any company, partnership, business, and/or other entity related in any way to the addressee. The term refers to the Company as it is currently constituted, as well as all predecessors and successors in interest of the Company and all subsidiaries, divisions, affiliates, and branches of the Company or of its predecessors or successors.
4. The terms "document" and "documents" shall include writings of any kind, formal or informal, whether or not wholly or partially in handwriting, and electronic communications, including by way of illustration and not by way of limitation any email, letter, memorandum of conversations, meetings, or intra-office communication, and any agreements, contracts, invoices, bills of lading and manifests.
5. As used herein, the term "Facility" shall mean the Company's facility located in the area of the New Cassel/Hicksville Ground Water Contamination Superfund Site, in the Towns of Hempstead, North Hempstead and Oyster Bay in Nassau County, New York.
6. As used herein, the term "industrial waste" shall mean any solid, liquid or sludge or any mixture thereof which possesses any of the following characteristics:
  - a. it contains one or more "hazardous substances" (at any concentration) as defined in 42 U.S.C. § 9601(14);
  - b. it is a "hazardous waste" as defined in 42 U.S.C. § 6903(5);
  - c. it has a pH less than 2.0 or greater than 12.5;
  - d. it reacts violently when mixed with water;
  - e. it generates toxic gases when mixed with water;
  - f. it easily ignites or explodes;
  - g. it is an industrial waste product;
  - h. it is an industrial treatment plant sludge or supernatant;
  - i. it is an industrial byproduct having some market value;
  - j. it is coolant water or blowdown waste from a coolant system;
  - k. it is a spent product which could be reused after rehabilitation; or
  - l. it is any material which you have reason to believe would be toxic if ingested, inhaled or placed in contact with your skin.
7. The term "identify" with respect to a natural person means to set forth the person's name, present and/or last known business address and business telephone number, present

and/or last known home address and home telephone number, and present and/or last known job title, position, or business.

8. The term "identify" with respect to a corporation, partnership, business trust or other association or business entity (including a sole proprietorship) means to set forth its full name, address, legal form (e.g. corporation, partnership, etc.), organization, if any, and a brief description of its business.
9. The term "identify" with respect to a document means to provide its customary business description, its date, its number if any (e.g. invoice or purchase order number), the identity of the author, addressor, addressee and/or recipient, and the substance or the subject matter.
10. As used herein the term "person" shall have the meaning set forth in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
11. As used herein, the term "the Property" shall mean and include any property within the Site that your Company either: (1) presently owns or formerly owned at any time or (2) at which your Company presently operates or formerly operated a Facility at the Site.
12. The term "Site" shall mean and include the Facility and any Property within the New Cassel/Hicksville Ground Water Contamination ("NCHGWC") Superfund Site. The NCHGWC Site comprises a widespread area of ground-water contamination which is located in the Towns of Hempstead, North Hempstead and Oyster Bay, New York. *See* enclosed Site Description and Site Location Map.
13. All terms not defined herein shall have their ordinary meaning, unless such terms are defined in CERCLA or the Resource Conservation and Recovery Act, in which case the statutory definitions shall apply.

## REQUEST FOR INFORMATION

1.
  - a. State the correct legal name and mailing address of your Company.
  - b. State the name(s) and address(es) of the President, Chief Executive Officer and the Chairman of the Board (or other presiding officer) of the Company.
  - c. Identify the state and date of incorporation of the Company and the Company's agents for service of process in the state of incorporation, and in New York State.
  - d. If your Company is a subsidiary or affiliate of another corporation or entity, identify each of those other corporations or entities and for each, the President, Chief Executive Officer and Chairman of the Board. Identify the state of incorporation and agents for service of process in the state of incorporation and in New York State for each corporation identified in your response to this question.
2. Identify the address, Section, Block and Lot numbers, and the size of each property (hereinafter, "Property" or "Properties") that your Company either presently owns and/or formerly owned within the Site from the date your Company, or any related company had an ownership interest. (See Definitions section for terms.)
3. For each Property identified in response to question 2. in which your Company has and/or had an ownership interest currently or in the past, please identify:
  - a. The date your Company acquired an ownership interest. An ownership interest includes, but is not limited to, fee owner, lessor or lessee, licensee and/or operator;
  - b. The name and address of all other current and/or previous owners;
  - c. All individuals or entities that have leased, subleased or otherwise operated at each Property at any time currently or in the past, and identify the dates (month and year) that each such individual or entity began and ended its leasehold interest or its operations;
  - d. Any portion of any Property which was transferred or sold, and the block and lot number, the date of the transfer or sale, the sale price and the entity that acquired the Property;
  - e. The relationship, if any, between your Company and each of the individuals and/or other entities identified as having leased or operated at each Property;
  - f. Your Company's involvement in all operations conducted by each lessee and/or other individual or entity identified in response to question 3c., above; and
  - g. For each Property, provide all documents relevant to your responses to questions

3a.- 3f., above, and provide copies, including, but not limited to, copies of surveys, title search documents, deeds, rent rolls, leases and correspondence.

4. Provide copies of all maps, building plans, floor plans and/or drawings for each Property identified in response to question 2., above. Your response to this question should include, but not be limited to, providing plumbing and drainage system plans for all structures on each Property.

For both current (if still in operation) and past operations during the period of time that the Company was at a Property, please identify and provide a description of

- a. all surface structures and features (e.g., buildings, above-ground storage tanks, paved, unpaved areas and parking lots, and dates when paved areas were paved);
  - b. all past and present plumbing systems, above and below-ground discharge piping, sumps, storm water drainage systems, sanitary sewer systems, septic tanks, dry wells, subsurface disposal fields, and underground storage tanks ; and
  - c. all currently existing and previously existing chemical and industrial hazardous substance storage, transfer, spill and disposal areas.
5. For each Property identified in question 2., above, at which your Company conducted operations, describe in detail the manufacturing processes and/or other operations that your Company conducted at the Property, and identify the years during which your Company conducted operations there. If those operations were not constant throughout your Company's operations, describe the nature of all changes in operations, and state the year of each change. If detailed information about your Company's operations is not available, provide, at a minimum, a general description of the nature of your Company's business at the Property, the years of operation, the type of work your Company conducted, and the number of employees for all the operations.
6. With respect to industrial wastes at a Property:
- a. List all industrial wastes that were used, stored, generated, handled or received by your Company at the Property. Your response to this question should include, but not be limited to, use, storage, generation and/or handling of trichloroethylene ("TCE"), tetrachloroethylene ("PCE"), 1,1,1-trichloroethane ("1,1,1-TCA") and other chlorinated or non-chlorinated solvents. Be as specific as possible in identifying each chemical, and provide, among other things, the chemical name, brand name, and chemical content;
  - b. State when each industrial waste identified in your response to question 6a., above, was used, stored, generated, handled or received, and state the volume of each industrial waste used, stored, generated and/or handled on an annual basis; and

- c. Describe the activity or activities in which each industrial waste identified in your response to question 6a., above, was used, stored, handled or received.
7. Describe in detail how and where the industrial wastes identified in response to question 6., above, were disposed. For each disposal location and method, state the nature and quantity of the material disposed of on an annual basis. For those time periods when a precise quantity is not available, provide an estimate.
8. Describe in detail any knowledge your Company has about intentional or unintentional disposal of industrial wastes at each Property identified in response to question 2., above, including, but not limited to, TCE, PCE and/or other chlorinated or non-chlorinated solvents or wastes containing such solvents, at any time currently or in the past. Your response should include instances in which industrial wastes were spilled or otherwise disposed onto or into the floors or the ground from septic systems, pipes, drains, drums, tanks, or by any other means. Provide copies of all documents relevant to your response.
9. Identify all leaks, spills, or releases of any kind of any industrial wastes (including, but not limited to, TCE and PCE or other chlorinated or non-chlorinated solvents or wastes containing such solvents) into the environment that have occurred, or may have occurred, at or from the Property, including any leaks or releases from drums and other containers. Provide copies of all documents relevant to your response.
10. Explain whether any repairs or construction were implemented to address any leaks, spills, releases or threats of releases of any kind, the nature of the work and the dates of any such work. Provide copies of all analyses, characterizations, environmental assessments or studies or any report or other description of any investigations, removal actions, remedial activities, or any other work conducted by your Company or by any other party on your Company's behalf relating to industrial wastes released at or from any Property and/or the Site. If any copies of the records requested in this question are available electronically, kindly submit your answer to this question on a disk.
11. Provide copies of all insurance policies held and indemnification agreements entered into by the Company which may potentially indemnify the Company against any liability which it may be found to have under CERCLA for releases and threatened releases of hazardous substances at and from the Property. In response to this request, please provide not only those insurance policies and agreements which currently are in effect, but also those that were in effect during any portion of the time the Company conducted operations at, or held a property interest. Your response should also identify the specific Property related to each policy and/or agreement.
12. State the names, telephone numbers and present or last known addresses of all individuals whom you have reason to believe may have knowledge, information or documents regarding the use, storage, generation, disposal of or handling of industrial wastes at the Site, the transportation of such materials to the Site, or the identity of any companies whose material was treated or disposed of at the Site.

13. If you have information or documents which may help EPA identify other companies that conducted operations, owned property, or were responsible for the handling, use, storage, treatment, or disposal of industrial wastes that potentially contributed to chlorinated solvent contamination of the Site, please provide that information and those documents, and identify the source(s) of your information.
14. Please state the name, title and address of each individual who assisted or was consulted in the preparation of your response to this Request for Information. In addition, state whether each such person has personal knowledge of the answers provided.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

State of

County of \_\_\_\_\_:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information regarding the New Cassel/Hicksville Site) and all documents submitted herewith, and that I believe that the submitted information is true, accurate, and complete, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that I am under a continuing obligation to supplement my response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information or my response thereto should become known or available to me.

\_\_\_\_\_  
NAME (print or type)

\_\_\_\_\_  
TITLE (print or type)

\_\_\_\_\_  
SIGNATURE

Sworn to before me this

\_\_ day of \_\_\_\_\_, 2013

\_\_\_\_\_  
Notary Public



CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

State of North Carolina

County of Mecklenburg

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information regarding the New Cassel/Hicksville Site) and all documents submitted herewith, and that I believe that the submitted information is true, accurate, and complete, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that I am under a continuing obligation to supplement my response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information or my response thereto should become known or available to me.

David G. Marren  
NAME (print or type)

Vice President of Safety and Regulatory  
TITLE (print or type) affairs

David G. Marren  
SIGNATURE

Sworn to before me this 26<sup>th</sup>

day of September, 2013

Lynn R. Roberts  
Notary Public